THE JOURNAL

OF THE

American Medical Association.

CONTAINING

THE OFFICIAL RECORD OF ITS PROCEEDINGS,

AND THE

REPORTS AND PAPERS PRESENTED IN THE SEVERAL SECTIONS

EDITED FOR THE ASSOCIATION BY N S DAVIS, M D, LL D

ASSISTED BY WM G EGGLESTON, M A, M D

VOLUME VI

1886

CHICAGO
PRINTED AT THE OFFICE OF THE ASSOCIATION
1886

"*The American Medical Association, though formally accepting and publishing the Reports of the various Standing Committees (and Sections), holds itself wholly irresponsible for the opinions, theories, or criticisms therein contained, except otherwise decided by special resolution*"—TRANSACTIONS, 1851

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, JANUARY 2, 1886 No 1

ORIGINAL ARTICLES

STATE AND LOCAL BOARD OF HEALTH[1]

BY JOHN AVERY, M D,

OF GREENVILLE, MICHIGAN

The State is charged with no higher duty than that of protecting the health and lives of its citizens. Its wealth is not so much in its soil, its timber, and its minerals, as in the ability of its citizens to develop these sources of wealth.

The theory of our form of government, and in fact of every form of enlightened government, is that each citizen is required to yield up a portion of his personal rights, that the general good of all may be conserved. In return for this surrender of individual liberty, the State undertakes to make him secure in his person, and in the undisturbed possession of his property. This security of person and property implies the right to labor in his own chosen calling, undisturbed and unhindered by another, so long as his calling is legal, and does not trespass upon the rights of any other citizen. It secures to him and to his family the fruits of that labor, and protects him and them in their enjoyment. And it gives him that sense of security which can only arise from a belief that his neighbors will respect his rights as he respects theirs, or that the State will interfere to restrain and to protect. The poor man's health is his capital, and the wages of each day's labor is the interest that capital pays to its owner. It is as much the duty of the State to protect that capital, and make the owner secure in its possession and enjoyment, principal and interest, as it is to protect a railroad corporation in its franchises, or a lottery company in its schemes.

And so the laws of all just government hold a man responsible for an injury done another, that disables him from labor, to the extent of the injury done, through carelessness, negligence or malice. Ignorance of the law may sometimes mitigate an offence against personal rights, but it can never justify it. A man must exercise the same care to protect another from injury or loss, as a prudent man would take to protect himself under like circumstances. In most if not all the States, these general principles have been embodied into the statute laws, and constitute the guarantee of the commonwealth to the citizen, that it will protect his life, his family, his property and his personal rights. And so we have laws to secure the safety of persons, while traveling on railroads, steamboats and other public conveyances, to give them reasonable protection while stopping at hotels, while attending theatres, concerts, and other places of public gatherings, to protect the employés of large manufacturing establishments, and the occupants of tenement houses, and to prevent the unnecessary spread of diseases which endanger the health and lives of the citizens of the State.

The latter are known as the public health laws of the State, and under them, the man who either intentionally or carelessly, exposes his neighbor or his family, to disease which interrupts his business or employment, and subjects him to pecuniary loss, is equally a violator of the law, or should be made such, as he who inflicts loss from exposure to fire, from accident while travelling on railroads, or attending any place of public resort, or at work in any mill or factory, or while residing in any tenement house.

In Michigan, and many other States, to give effect to these laws, to see that they are properly enforced and observed, the State has created a State Board of Health, and a local board of health in each municipality in the State. The duties of the State Board, under the law, are supervisory and advisory. "They have the general supervision of the interests of the health and life of the citizens of the State." They are commanded to "study the vital statistics of the State, and to endeavor to make intelligent and profitable use of the collected records of deaths and sickness among the people, to make sanitary investigations and inquiries respecting the causes of diseases, and especially of epidemics, the causes of mortality, and the effects of localities, employments, ingesta, habits and circumstances on the health of the people. They shall, when required, or when they deem it best, advise officers of the government, or other State Boards, in regard to the location, drainage, water supply, disposal of excreta, heating and ventilation of any public institution or building."

They are required to communicate with other State Boards of Health, and with local boards of health within the State, and to prepare blank forms of returns, and such instructions as may be necessary, and forward them to the clerks of local boards of health throughout the State. They shall collect information concerning vital statistics, knowledge respecting diseases, and all useful information on the subject of hygiene, and through an annual report, or otherwise as the Board may direct, shall disseminate such information among the people.

---

[1] Read in the Section of State Medicine at the Thirty Sixth Annual Meeting of the American Medical Association.

And the law further provides that the members of the Board shall receive no compensation for their services, except traveling and other necessary expenses while employed on the business of the Board. This is undoubtedly a wise provision, and I would most earnestly recommend its adoption in every State where the physicians are all rich, and the people all poor. The State furnishes office room for the use of the Board, and authorizes the employment of a sufficient number of clerks to do the large amount of work which comes into the office of the Secretary, and makes a reasonable appropriation of money each year to defray all necessary expenses of the Board. During the twelve years since the organization of the Board, they have prepared, printed and circulated among local boards of health, health officers and the people over 500,000 copies of monographs on different subjects relating to public health. They have collected records of sickness and deaths in different parts of the State, and given the results back to the people of the State. They have inquired into the causes of local epidemics and warned and advised communities. They have investigated special causes of sickness, such as poisonous cheese, diseased meats, poisonous wall paper, adulterated foods of various kinds and impure water. They have visited various places in the State where nuisances have been reported to them by aggrieved citizens, and advised as to the remedy in such cases.

They have visited, at the request of the State Board of Correction and Charities, poor-houses and jails in different counties in the State, called attention to their defects and suggested how they could be improved. They have visited the prisons and other State institutions, at the request of their officers and boards of control, to advise how their condition could be bettered. And their advice has uniformly been kindly and courteously received, and often acted upon to the improvement of such institutions. They have examined plans of public buildings about to be erected, and suggested alterations in methods of heating, ventilation, lighting, drainage, plumbing and safety in case of fire. And these suggestions have generally been thankfully accepted and acted upon by architects and builders. The result of these examinations of the plans of public buildings is, that not only the State has buildings better adapted to the purposes for which they are designed, but more attention is being paid to these details in building public halls, school houses, churches and private residences. And thus the comfort, safety, and health of the people of the State is being better secured.

In addition to these prescribed duties of the Board, they have endeavored to awaken a more general interest among the people in sanitary matters, by inaugurating and conducting a series of Sanitary Conventions in the principal cities and villages of the State. These conventions are held under the direction of the State Board, aided by a committee of the citizens in the locality where they are held. Persons interested in sanitary work in each place, and throughout the State, are invited to prepare and read papers upon, and participate in the discussion of such subjects as the particular locality is most interested in. Local papers advertise these conventions, and publish the programmes, in this way the people become interested, and the attendance is generally good. The papers read at these conventions, and a synopsis of the discussions elicited, are printed in pamphlet form and distributed gratuitously among the people. Local health officers in the vicinity quite generally attend these conventions, and take home with them an increased interest in their work. In this way the people are gradually being educated, health officers instructed, and local boards of health are each year becoming more and more efficient.

The State Board of Health is in direct and frequent communication with every city, village and township in the State, through their local boards of health and health officers. They act as a sort of central signal station to which signals of alarm and distress are sent from all parts of the State, and from which warning is sent to the endangered and advice and aid to the afflicted.[1]

The local boards of health are charged with the duty of administering and enforcing the laws relating to the public health. That they have been stimulated and stirred into activity, through the efforts of the State Board, is not to be questioned. And the benefits secured to the people of the State in this direction are perhaps greater and can be more readily appreciated, than in any other. Before the organization of the State Board these local boards, existed scarcely more than in name. They rarely if ever met as a board, made no reports, and in fact, many township and village officers, never knew, that by virtue of the offices they held, they were members of a board of health. Now all this is changed, and we have in place of these inanimate bodies, live, active and working boards of health in most of our cities, villages and townships.

They are required by law "to make annual reports to the State Board," and most of them through the local health physician, report weekly. They are required by law, "to appoint and to constantly have a health officer, who should be a well educated physician, and who shall act as the sanitary advisor, and executive officer of the Board." And in townships where it is not practicable to secure the services of a well-educated and suitable physician, the board may appoint the supervisor or some other person as such health officer. And they shall regulate and audit all fees and charges of persons employed by them in the execution of the health laws, and of their own regulations. And within thirty days after each annual meeting, the Board of Health shall meet for the transaction of business, and shall appoint or reappoint a health officer, and report his name to the State Board, together with his address and a statement whether he is a physician or not. Special meetings are held upon the call of the President or any two members of the Board. They shall make special reports to the State Board whenever required to do so. They shall give public notice of all regulations made by them, and such notice shall be deemed legal notice to all persons. And the health officer, shall, on the receipt of information of a case of small-pox, diphtheria, scarlet fever or other communicable disease dangerous to public health, keep the President of his own board and Secretary of the State Board of Health, constantly informed in respect to such outbreak of disease, and of all the facts, so far as they shall come to his knowledge, respecting sources of danger from any such diseased person or infected article being brought into or taken out of his township, village or city. The local board shall make such regulations respecting nuisances, sources of filth, and causes of sickness within their respective municipalities as they shall judge necessary for the public health and safety. Whenever they shall think it necessary they may enter any building or vessel in their jurisdiction, for the purpose of examining into and destroying, removing or preventing any nuisance, source of filth or cause of sickness. They may make such rules and regulations in relation to the care and cleansing of privies and water-closets, as they may deem desirable for the preservation of the health of the inhabitants—or they may declare any such privy or water closet a nuisance, and order its abatement.

---

[1] A recent law, requiring the study of physiology and hygiene with especial reference to the effect of alcoholic stimulants upon the human system in all our common schools provides that all text books upon these subjects shall be submitted for approval to the joint action of the State Board of Health and the State Board of Education. In pursuance of this provision a large number of text books have been examined and some approved and some not approved.

When they shall judge it necessary, they shall assign certain places for the exercise of any trade or employment offensive to the inhabitants or dangerous to the public health, and forbid the exercise thereof in places not so assigned. Whenever a health officer shall receive reliable notice, or shall otherwise have good reason to believe, that there is within his township a case of small-pox, diphtheria, scarlet fever or other communicable disease dangerous to the public health, it shall be his duty to immediately investigate the subject, and to order the prompt and thorough isolation of those sick or infected with such disease, so long as there is danger of communicating it to other persons, and to see that no person suffers for the want of nurses or other necessaries because of isolation for the public good, to give public notice by placard, and to promptly notify teachers or superintendents of schools concerning families in which are contagious diseases, to supervise funerals of persons dead from any communicable disease, to disinfect clothing, rooms and premises, and all articles likely to be infected, before allowing their use by persons other than those in isolation. And this well-educated physician, health officer and sanitary adviser, shall receive for his services a sum of not less than two dollars *per diem*. This is another wise provision, particularly commended to the attention of other States. In justice to Michigan, however, I will state that this does not prevent local authorities from fixing the salary of the health officer at a larger sum.

Local boards of health, shall provide hospitals, or some suitable place for the reception and treatment of persons sick with infectious disease, dangerous to public health, and remove persons so infected when public safety demands, or they may consider the house in which the person is taken sick a hospital, as the condition of the patient and the public safety may seem to demand.

By this summary, it will be seen, that the law confers upon local boards of health ample authority, to make and enforce any regulations necessary to protect the citizens of their respective municipalities, against the spread of any communicable disease dangerous in its character, to limit it to the first cases infected, and in the end, to stamp it out. It provides penalties for the violation of any of their regulations or ordinances, and also for the non-performance of duties. These local boards, then are the administrators of all our public health laws, and to their intelligence, zeal and activity in enforcing these laws must the people of Michigan look for security against the spread in their midst of all infectious diseases, and avoidable sources of disease, which endanger their health and lives, and entail suffering and pecuniary loss upon every community they smite.

Nor does the law relieve from responsibility the citizens of the State in regard to the means by which disease is communicated. It requires every householder, hotel keeper, keeper of a boarding-house, and tenants who shall have knowledge of the presence of any communicable disease, in his family, hotel, boarding-house, or on his premises, to give prompt notice of the fact, to the health officer, president or clerk of the board of health of his township, and if he shall neglect or refuse to immediately give such notice, he shall forfeit for each offence, a sum not exceeding one hundred dollars. And it is the duty of the supervisors and presidents of local boards to see that this provision of the law is complied with.

Thus the law in Michigan is very specific in defining the duties of both the State and local Boards of Health. It confers upon the State Board no executive authority, but makes it simply an educative and advisory Board in all matters relating to the public health, and leaves the enforcement of all our public health laws in the hands of the local boards of health. This has proved very satisfactory in that State, and is perhaps, under our form of government, the wisest and safest distribution of authority that can be made—leaving as it does, the enforcement of the public health laws, where it does the enforcement of all other laws for the protection of individuals and communities, in the hands of the local authorities. The State Board represents a larger constituency, and its advice is received and acted upon more readily, than that of any of the local boards. As the whole is greater than any of its parts, so are the utterances of the State Board, representing as they do the whole State, more authoritative than those of any local board. These local boards report to it, and it is the medium through which these reports are summarized and the information afforded by them given to the people.

In each State there are particular diseases and sources of danger, which threaten the public health. In the Southern States, yellow fever, in our sea-board cities and States, Asiatic cholera. In the Eastern and older States, typhoid, and typhus fevers, while in the Northern and Western States, scarlet fever and diphtheria are the particular scourges which afflict the people and demand the untiring vigilance of both State and local boards of health These, unlike most other contagious diseases, delight to strike down the young of our land, and on that account, seem the most unnatural of all the fatal dangers that threaten us In Michigan, the State Board has made an unrelenting warfare upon them, and the people are beginning to demand of the local authorities, the same protection against their spread as they do in an outbreak of small pox They know that small-pox is contagious, and they keep away from it, and insist that the infected shall be kept away from them Through the efforts and educational influence of the State Board, they are beginning to realize that scarlet fever and diphtheria are equally contagious, and much more dangerous to life, and they demand the same protection from them that they do from small-pox

Three years ago, small-pox broke out in a lumber camp, but a few miles from where I reside Nineteen persons had it, and one died At the same time, and in an immediate neighborhood, scarlet fever made its appearance, with a total of twelve cases, and five deaths The people of the country, for miles around, were excited and alarmed about the small-pox, but paid little or no attention to the scarlet fever But a few weeks since, in the same neighborhood, diphtheria was introduced into a family of eight children, and while six of the children died, the disease was not allowed to spread beyond that family Its presence was immediately reported to the local health officer and to the State Board of Health The house was placarded, and quarantined, and every precaution taken to keep the disease within its original limits, and while mourning continues in that household, the community is saved from the further spread of that most fearful scourge

Perhaps this incident in this particular community fairly represents the change in public sentiment throughout the State, in regard to the contagiousness of diphtheria and scarlet fever, and the means necessary to prevent their spread This change is due to the better information of the people in regard to this class of diseases, and this information has been furnished the people through the agency and efforts of the State Board of Health But the people are forgetful and neglectful, and need to be constantly reminded of the sources of danger which threaten their health and lives "Line upon line and precept upon precept," is as necessary to promote public sanitation as it is to promote public and private morals

Constant advice and warning are needed, and in no way can these be furnished the people so generally, so authoritatively, and effectively as through the medium of a well organized and well conducted State Board of Health The obligation of the State to protect the health and lives of its citizens is plain And in no way can it so well perform this duty, as by incurring the small outlay of money necessary for the maintenance and effective working of a State Board of Health

ON THE RELATIONS BETWEEN CELLS AND MICRO-ORGANISMS[1]

BY AUGUSTUS C BERNAYS,

A M M D HEIDELBERG M R C S ENGLAND F R M S, LONDON

Member German Society Surgeons of Berlin Professor of Anatomy St Louis College Physicians and Surgeons

The circular of our Secretary requesting contributions from the members, brought this body of workers into my consciousness, and mindful of the liberality of its constitution and of the earnestness of its purposes I decided to offer the following study at this meeting My subject is not in direct connection with sanitary science, but inasmuch as it treats of vital questions which underlie our progress in medical science of the present times, I trust it will claim your attention

The greatest step forward that was ever taken at one time in medical science was by Rudolph Virchow in the years 1855–1858, when he finished his classical work on "Cellular Pathology" It is not saying too much to claim that on the recognition of the cell theory and its application to pathology is built the entire structure of modern medicine, surgery and hygiene Recognizing the immense benefit which has accrued to mankind from this doctrine, I propose now to inquire into the facts upon which it is based and to ask in which way further progress may be expected

1 "*A cell is a living body consisting of two bladders, the one within the other of different chemical constitution*" Virchow

2 "*Omnis cellula e cellula*" Virchow

3 "*All living things correspond in the one point, that they originate from a cell*" Virchow

4 "*The cell is the simplest form of life manifestation*" Virchow

5 "*Life is confined to a definite form, the cell*" Virchow

6 "*Without a cell there is no life*" Virchow

The above six sentences are quoted from Virchow's "Gesammelte Abhandlungen zur Wissenschaftlichen Medicin," pag 22, Frankfurt-on-Main, 1856

The commanding influence of Virchow on modern pathological and biological research has so far controlled the opinions and thoughts of European scientists, of whom at least four-fifths are his own disciples, that the above theses have entirely entered into the bone and sinew of the students of natural sciences Until very recently they have gone unchallenged, except by a very few, and the objections have as yet made little or no impression, as can be seen by a glance at the first pages of any text book of pathological anatomy or biology published during the past ten years

In a paper purporting to treat of cells, it is proper that we should define this term If we cannot define the term, it loses its usefulness The definitions given by Virchow above are insufficient, since we know innumerable instances of living solitary organisms that do not fulfil the postulates For instance, a micrococcus is certainly a living being, but it is no bladder, nor has anybody ever seen a bladder shaped substance within it I chose this instance at this place, because *I expect to prove that the group of micro organisms, which we call schizomycetes, cannot be classed under the head of what any author up to this day has ever defined to be a cell* When Virchow says that "Without a cell there is no life" he *defines* nothing, the statement is of about as much value as if he had said, *Without protoplasm there is no life, or without albumen there is no life* Such statements are purely hypothetical, they are illogical, because they involve unknown quantities *i e* cell, protoplasm, albumen, and finally they are not postulated by any thing I have just shown that Virchow's definition of a cell would exclude the micro organisms, but no one will doubt that they are living bodies

---

[1] Prepared for the American Public Health Association Dec 1885

C Gegenbaur, one of the most acute and logical thinkers among morphologists defines cells as follows "Cells consist of a small lump of soft living substance, which encloses a more compact body, the nucleus" This definition would also exclude the micro organisms of the group of the schizomycetes The text books of Frey, Orth, Toldt, W Krause and others have accepted the definition of Max Schultze, who defines the cell-substance or protoplasm as a homogeneous, glassy transparent ground-substance, of a semi fluid (soft-waxy) consistency, held together by virtue of this property, with a nucleus, a nearly homogeneous, globular, almost solid body, containing a shiny nucleolus This definition fits the schizomycetes just as little as did the two former We must therefore conclude that these organisms are not cells at all But they are living beings Therefore life is not confined to the definite form called a cell, neither is the cell the simplest form of life-manifestation, and there certainly is life independent of cells

Before entering more deeply into the question regarding the proper definition of the notion cell we must examine what the term protoplasm means This question is not easily answered, since the word is used promiscuously by different authors to mean very different things Confusion reigns in regard to the meaning and use of this word to such a degree that a definition is impossible Some use the word to designate all living and acting substance, the whole substance of the cell including the nucleus, but excluding the cell-membrane, if one be present Others mean by protoplasm only the substance of the cell minus nucleus and membrane Others again use the term only in regard to indifferent or young cells, and do not apply it to the substance of cells which have become specifically differentiated It appears very difficult where to draw the line in these cases between protoplasm and differentiated or higher cell substances But few call the cell substance of muscle cells, or of red blood corpuscles *protoplasm*, whereas most histologists speak of the protoplasm of ganglion or cartilage or connective tissue-cells Should any one attempt to answer the problem, whether any given cell substance is protoplasm or when it is no longer protoplasm, he will find himself unable to respond, simply because no one knows exactly what protoplasm is The recent researches on protoplasm or cell substance by Fromman, Arnold, and especially by Walter Fleming, on whose works I have largely drawn for the present essay, have shown that there is a definite structure in protoplasm morphologically speaking This question, as to the nature of protoplasm has also been studied by Heitzman, and he has arrived at the remarkable conclusion, that the entire body of all animals is one connected mass of protoplasm Stricker has even denied that cells have definite boundaries These last two hypotheses or discoveries, as they are claimed to be, by their authors, directly contradict the experiences of 99-100ths of all observers, and I have seen nothing which would lend even the slightest countenance to such statements Protoplasm has been analyzed chemically and has been found to consist of albuminoid substances, it is said to be contractile, but that is not proven of everything which is called protoplasm The protoplasm theory says "Protoplasm is living material, all life and all organic forms are limited to it and are its products" Does this proposition deserve the name of a theory? Considering that we cannot define the word protoplasm better than the above sentences have shown, is not this theory virtually a *petitio principii*, as much, and even more so, than we were able to show the cell theory of Virchow to be

Our conclusions thus far might be called iconoclastic, although strictly logical and scientific They deserve this appellation unless we can show how the errors just found, may be avoided by future investigators, or if we can advance a better hypothesis in the place of the old ones

It cannot be my object now to enter upon a description of all the methods employed by me to establish the following facts, upon which I will base the conclusions of this essay I reserve these details for an extensive paper, which I shall publish at another time I can merely give some of the facts and results arrived at

During the past five years two particular subjects in microscopical science have chiefly engrossed the thoughts of all progressive workers in this branch The first one was the morphology and physiology of micro organisms, which term I use to include schizomycetes and micrococci only The second was the morphology and physiology of cell protoplasm and cell nucleus, especially the phenomena of karyokinesis, or the division of the nucleus and the structure of cell-substance During my studies on the subjects, I was first of all impressed by the observation that the so called bacteria or micro organisms can in no way be compared to what in histology of the higher animals are called cells Following up this impression by micro chemical experiments, I soon became convinced that the reactions of the cell-substance or protoplasm in no way corresponded to the reactions of bacteria or schizomycetes under the same treatment This fact, however, is well established by many investigators I found, also, that the chemical reaction of the micro organisms closely corresponds to the reaction of the nuclei contained in the cell substance, in fact, that it must be very similar to the substance we call nuclein During the summer of

1884 I spent many days and nights examining and cultivating micro organisms of different kinds In many of my open air cultivations with hay infusions I made the discovery, that there are organisms which can only be called free living nuclei This observation has been made by a few investigators before me, but has always been denied or disputed by others I am ready, however, during any summer, to demonstrate and cultivate these organisms to the absolute satisfaction and conviction of even the most skeptical person In these infusions I not only found free living nuclei, but I saw organisms in almost all stages between a free living naked nucleus to nuclei which were surrounded by a complete shell of protoplasm or cell-substance I also saw nuclei which had a single protoplasmatic cilium, which they used as an organ of locomotion Others of these nuclei had three, still others had as many as fifty cilia arranged around their circumference I could plainly see how a small speck of protoplasm attached to one side of these free nuclei would develop into a hair or cilium, during a few hours that were occupied in the observation of a single organism I could also plainly discern that within the free living nuclei there were smaller dark bodies, some of spherical, others of bacillar shape, which were in constant lively motion I am sure also that I often saw them arrange themselves into rather regular figures previous to division I never succeeded in observing an entire process of division either in a free living nucleus or in an isolated living cell The cause of this was that I could not keep the organisms alive long enough by any means at my disposal I can, however, corroborate the observations of Walter Fleming regarding the process of nuclear division on hardened specimens to the very utmost detail Another observation that I can state with certainty is that the movable bodies contained within the nucleus sometimes leave the body of the nucleus and swim away from it under the cover glass in the water or solution of nutritive salts I also saw bodies which evidently were micro organisms, either bacteria or micrococci, enter into these free nuclei, probably through the same pores or holes in the nuclear membrane through which the others had just left the nucleus

During the summer of 1885 I spent many hours in experiments, conducted with a view to solve the problem as to what would become of a living cell if left to die in a sterilized nutritive fluid I may be permitted to state that I became almost convinced that the death of cells under these circumstances is attended by the development of micro organisms My observations on this point, however, were not absolutely satisfactory It is almost impossible to exclude all sources of error and I do not wish to be understood as having stated this to be a certain fact Most of these experiments were made with a Zeiss 1–25 inch lens Before leaving this part of our discourse I must say that all later observers seem to agree on the fact that the nucleus is the essential part of a cell, and that the reproductive function at least emanates from it The other functions of the nucleus, if there be any, are unknown The fact, however, that reproduction starts and is principally carried on by the nucleus, sufficiently proves that the nucleus is the most important part of the cell As long as the idea that a nucleus which is not surrounded by protoplasm or cell-substance does not exist as a living entity controls the mind, it will be very hard to grasp the weight and bearing of the above observations

Histologists who are accustomed to work almost exclusively with tissues of higher organisms never think of a living nucleus without protoplasm, even as a possibility After a time, when the fact that there are numerous organisms which are homologous to free nuclei shall have been recognized and corroborated, the supposition that the nucleus is, genetically speaking, the older and most essential part of a cell will seem as evident as it has seemed heretofore that the cell substance was the important part of the cell This latter opinion is based upon the hypothesis that the nucleus is only "condensed or differentiated protoplasm" It supposes that protoplasm is the basis of all life But we know of many organisms, for instance, schizomycetes or micrococci, whose chemical and morphological appearances in no way correspond to those of protoplasm We know also that the nuclei of cells, as well as the free living nuclei, are not protoplasm The protoplasm theory must therefore be given up, it is imperfect and is not called for by the facts I should not wonder if in a few years it will appear strange how such an error as the slighting of the nucleus in favor of the cell substance, making the latter the more important, and giving the nucleus only a secondary position, could have occurred The greatest living investigators, men who usually proceed in a most logical and scientific way, have fallen into this prejudice We know of no example of a cell in the animal kingdom that neither has nor ever had a nucleus The so called cell substance, however, is not really so constant a factor, we find it in the most varying conditions We do not know that any cell without a nucleus is capable of division or multiplication, but I have seen the division of the living naked nucleus These facts all tend to demonstrate the primary and essential importance of the nucleus in contradistinction to the cell-substance The function or use of the latter is unknown Possibly it serves the purposes of nutrition in the beginning and is afterwards used for a great variety of purposes, the nucleus always being the essential part so long as it lives

No one will dare to deny that the great progress made in the natural sciences in modern times is chiefly due to the recognition of the great principle of evolution This principle itself was established most thoroughly by the two disciplines called comparative anatomy and embryology It is very evident that the main progress we have made towards a scientific understanding of organic life, has been reached not by study only of the adult or perfect stages of our objects, but by the observations made on the different stages of the growing organism during its development Gegenbaur says "Thus ontogeny and comparative anatomy appear as the scientific basis of human anatomy" The latter discipline has been placed upon a more scientific basis, since the introduction of the onto and phylo genetic methods of investigation These methods, I deem, are the ones which should be employed in all instances where a question arises concerning the position of any given organism in the pedigree of life

Mr Ernst Haeckel himself has fallen into a grave error here, which undoubtedly will cause the toppling over of his entire structure, grand and wonderful as he has built it Mr Haeckel is the author of the biogenetic fundamental law This law, generally speaking, says Embryology (ontogenesis) is a condensed and abbreviated repetition of phylogenesis, or the development of the race We may accept this thesis for the present, reserving the right to modify or amend it in future Mr Haeckel started his tree of life upon the foundation of protoplasm, from this he jumped to what he calls monera These organisms are cytodes without a nucleus, merely small pieces of cell substance or protoplasm Next he allows a nucleus to be differentiated out of this protoplasm These, then, are his *cells* In order to decide the question where the cells belong in the scale, Mr Haeckel should have used the methods above mentioned, and under the guidance of his biogenetic law he might have undoubtedly reached the true conclusion

This now brings me to the main point of this essay In order to decide what the cell is, let us see whereto the ontogenetic method will lead us No sane person will claim that a cell must needs be the lowest living entity If, therefore, we can observe the ontogenesis of higher organisms, why may we not try to study the development of a cell? I have faithfully tried this method with all the technical appurtenances, aids and ingenuity at my disposal I have only partially succeeded, but what I have seen is very encouraging I repeatedly saw a naked living nucleus, while under observation, develop or attract unto its surface (out of the water or nutritive fluid in which the nucleus was examined) small particles of substance which seem to me to correspond exactly in optical appearances to what is usually called cell substance or protoplasm The comparative method, when applied to the examination of free nuclei and cells, yielded an almost perfect result As I stated above, I saw all the stages of living organisms which naturally range between a naked nucleus and one entirely covered by cell-substance This observation is readily made and can be corroborated by any careful microscopist who is accustomed to work with high powers

Placing the results thus obtained together with the beautiful work done by Fleming, Rabl, Arnold, Strassburger, Kupfer and others on karyokinesis, the conclusion which seems absolutely unavoidable is that the nucleus existed before the so called cell and before protoplasm Protoplasm or cell substance is a product of differentiation of the nucleus

I extended my investigations one step farther after I had determined the primary importance of the nucleus I attempted to analyze the nucleus itself by the methods of development and comparison As above stated, I plainly saw that within the nucleus there existed active moving bodies of definite forms Their movements remind the observer of the movements of the smallest micrococci and bacteria The refraction of light and their chemical reactions also correspond closely to those of these lowest of all known organisms As above stated, these bodies sometimes leave the nuclei through pores in the nuclear membrane, and others seem to enter into the same places This, together with the observation, which is not yet well enough established to be convincing, that a cell or its nucleus, when left to die in a sterilized nutrient fluid, will set free micro organisms, would seem to indicate the hypothesis that the nucleus is a conglomeration of micrococci or a *syncoccium* This, however, I desire to have understood is by no means a conclusion which deserves any more notice than a preliminary hypothesis, based as it is on observations which I consider entirely too doubtful for a scientific result

Before ending my essay I may take the liberty of setting up the following theses as the result of my observations and reflections

Theses

I The hypothesis that protoplasm is the basis of all life is untrue

II The hypothesis that cells are the result of the differentiation of protoplasm is untenable

III The hypothesis that the so called cytodes, or cells without nuclei, are phylogenetically the ancestors of cells (with nuclei) is false

IV The nucleus is phylogenetically the progenitor of the cell

V A cell is an organism which is developed by differentiation and growth from a nucleus

VI The process of karyokinesis is a part of the ontogeny of cells

Hypothesis

The lowest known stages of the phylogenetic tree of organic beings are

I Micro organisms
II Free nuclei = synococcium?
III Cells

In order to show the usefulness of my hypothesis, let us look for a moment at the origin of hereditary disease It is a fact that a parent will transfer to its offspring many of its peculiarities One of these is sickness We know that tuberculosis, commonly called consumption, is often inherited We know that this disease is caused by the development of a micro organism, which is called bacillus tuberculosis

It has been necessary to accept the hypothesis that the parent only transmits a peculiar diathesis to the offspring, which makes it more susceptible to the micro-organism But, as all practitioners of medicine know, this hypothesis is not tenable in all cases There are cases known where children were separated from their parents soon after birth—say seven orphans were adopted by seven different families, and placed in the most varying external relations, still not one of them lived to be 28 years of age Is it reasonable to believe that a tubercle bacillus found its way into each of their lungs and there set up its work of destruction? It seems to me that an explanation in every way more plausible can be derived from the supposition that the egg cell of the mother or the spermatozoon of the father bore within them the taint, perhaps the veritable bacillus itself, or the homologon of a spore as one of the component parts of these elements

---

CONCERNING VAGINAL INJECTIONS[1]

BY W THORNTON PARKER, M D (MUNICH),

OF NEWPORT R I

Almost every work upon gynecology acknowledges the importance of vaginal injections in the treatment of disease of the pelvic viscera, and at present it seems to be the general opinion that these injections must be received by the patient while lying on her back with elevated hips, if good results are to be expected

The uselessness of the small stream attainable from almost every syringe is well known, and while Scanzoni has taught for so many years the necessity for copious injections, he has never supplied the apparatus If we consult our works on gynecology, we will be surprised to discover the numerous syringes and appliances offered for vaginal injections

So miserable, useless and even dangerous are the syringes supplied that Dr Emmet has concluded that the only syringe worth using is the "Fountain," and "that no patient can use vaginal injections efficiently herself, but must have them administered by another " For *this* vaginal injection the services of a nurse or servant must be employed, or else elaborate preparation of bed and bed clothing, and the many details connected with the operation must be carefully carried out It is very interesting to consider the minute details and the complicated methods recommended by such writers as Thomas and Emmet, who are such giants in the practical operations which have revolutionized gynecological surgery A collection of the descriptions for preparing patient and bed for recumbent vaginal injections is really astonishing, and in many cases one is forced to either devote a good hour to unravel the puzzle, or else to conclude that a patient once subjected to such fussy preparation *might* be willing to receive *one* such injection, but hardly a second Indeed, to subject a nervous patient to such elaborate preparations is a miserable imposition, and is undoubtedly very often sufficient to discourage further interest in the progress of the treatment of the case Such discouragement has indeed often put a positive stop to all further attempt at a case, and the woman of ordinary modesty feels outraged by the exposure necessary for the injection, which disturbs her much more than mounting the elaborate brass mounted table so common in the offices of our amateur gynecologists

The use of the vaginal syringe should be accomplished with as little annoyance to the patient as the simple operation of washing her hands or her face, and when this can be demonstrated then, and not till then, will the bidet find its way for daily use in countless homes, not as a preventative against conception, but as a precaution against disease Thomas, however, opposes the sweeping assertion of Emmet, that vaginal injections received from a bidet are useless, and is willing to allow that some good can be derived from such injections, but in a limited, very limited, degree

When we read on further in Dr Thomas's work, and find that he recommends the common Davidson syringe, one cannot be surprised that his doubts are freely expressed as to the efficacy of vaginal injection He has freely quoted Scanzoni in urging copious vaginal injections, and yet he must know that at present the average so called female syringe is utterly unable to supply a sufficiently copious stream to be of any use whatever The works of American gynecologists are all in error on this important topic, but if we consult the writings of Barnes and Edis we shall find that vaginal injections from the bidet, or even the common basin, are highly recommended and are frequently successful, because the syringes sold in England are mostly the admirable ones of Higginson, and not the useless apparatus found for sale in our drug shops Few writers on gynecology have presented such a useful and practical book as that of Edis, on "Diseases of Women," and some of his remarks are so excellent that I take the liberty to quote them "Syringes made of India-rubber are the most suitable, pewter or glass should never be used Higginson's syringe is one of the most convenient form The vaginal tube should be adjusted so as to lessen the force with which the fluid is injected, and prevent the possibility of the nozzle being inserted into the cervix Instances of severe uterine colic, intense agony, peritonitis, and even death, from the employment of vaginal injections, have been recorded[1] In some cases this may possibly be explained by the tube being inserted into the patulous cervex of a retroverted uterus We cannot therefore be too careful in explaining to the patient how to use the syringe properly " Barnes asserts that "injections fail because they do not touch the main seat of the disorder, which in the majority of cases is in the uterus itself, but although they fail to cure, they may be useful as far as they go " He, however, recommends vaginal injections with the Higginson syringe, and considers the bidet the useful vessel that it is

In 1879 I devised a vaginal syringe, made by Tiemann & Co, of New York which has since been greatly improved The bulbs for this syringe were manufactured at first in Paris, making the syringe very expensive, but lately Messrs Tiemann & Co have manufactured these bulbs in New York, and it is now possible to obtain the best vaginal and rectal syringe which I know of, not excepting the excellent English Higginson, from them This syringe is made entirely of rubber, and the vaginal and rectal tubes are perfectly flexible There is no terminal orifice, but the sides are perforated with velvet eyes for a distance of nearly two inches from the end These rubber syringe points do not lacerate the mucous membrane nor produce the injury so often caused by the hard metallic tubes The bulb and tube are large and

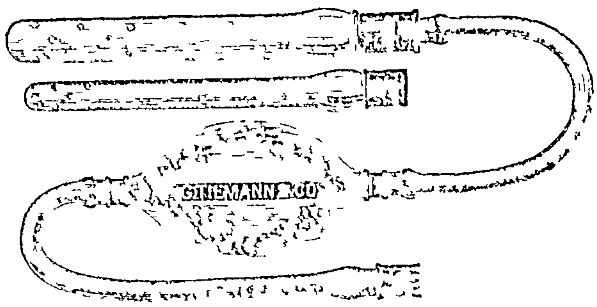
---

[1] Read before the Newport Medical Society on October 7 1885

[2] Quoted by Thomas Diseases of Women " p 74

[1] A death from the use of a Davidson s syringe is reported in the Gynecological Journal 1872, p 340 et seq

[2] New York Med Record July 5 1879



afford a copious supply of water For use in the recumbent position the vaginal douche pan invented by Dr Baker, or the Reynolds siphon bed pan manufactured by Otis Clapp & Son, are to be recommended, but the necessity for the use of the bed pans referred to is only when the patient is too feeble to administer the injections herself

With the bidet and the syringe which I have already described, a safe and useful vaginal injection can be obtained[1] The patient can make herself very comfortable on the bidet, and the syringe is so constructed that very little effort is required to empty the bulb, and pour out into the vagina a copious supply of water, estimated as being many times greater than that obtained from any other syringe at present in existence The dangers of uterine colic and other accidents while using this syringe and the bidet are reduced to the minimum A thorough washing of the vaginal walls is easily accomplished, and a large bidet allows a much greater supply of water, and is consequently a cleaner apparatus than can be possible from any bed pan or fountain syringe It is worth something for the patient to be able to arrange for and to use the bidet without trouble and innumerable preparations It should be used just before stepping into bed I direct my patients to fill the bidet as full as possible with water from 100° to 110° F in temperature, when ready for use The patient should have the legs covered with warm stockings, the feet encased in warm slippers, and if weak a warm wrapper can be thrown over the shoulders The injection should be continued for at least ten minutes The ingredients to be added to the hot water should be carefully mixed with the water before using After the injection the parts should be well dried with a soft towel, a suppository introduced and a napkin applied immediately upon entering the bed For the treatment of ordinary leucorrhœa I direct that the hollow vaginal suppositories of Dr Chas I Mitchell, of Philadelphia, and a formula devised by myself, consisting of sulpho carbolate of zinc, grs x, and sulphate of morphia grs ss, be used, or else the suppositories of boro glyceride made for me by Messrs Theodore Metcalf & Co, of Boston In the *New York Medical Record*, Sept 24, 1882, the *American Journ of Obstetrics*, Feb, 1884, the *Philadelphia Med Times*, Sept 20, 1884, and the *Virginia Medical Monthly*, August, 1885, I have called attention to the valuable properties of boro glyceride, especially in gynecological practice For those of my readers who are not acquainted with boro glyceride I would quote the following from the *British Medical Journal* "Boro glyceride is a body of definite chemical composition ($C_3H_5BO_3$), which forms a definite hydrate with a large quantity of boiling water, and is not, we are informed, decomposed when diluted in the proportion useful in surgery—one part to twenty or thirty parts of water Such a solution is inodorous, has a slight saltish taste, and is quite unirritating to a wounded surface Under its use wounds of all kinds do extremely well, and heal fully as rapidly as under carbolic acid dressings over which boroglyceride has the advantage that it does not irritate the wound or the surrounding skin, and that it is, so far as is known, entirely innocuous when applied to a wounded surface" Messrs Theodore Metcalf & Co, of Boston, have at my suggestion made vaginal and rectal suppositories of boro glyceride in combination with gelatin and pencils of the same for intrauterine and other uses These contain twenty-five per cent of boro glyceride The suppositories are of three sizes, Nos 1, 2 and 3 No 1, the smallest, is a useful suppository in various rectal disorders, particularly in hemorrhoids and pruritus ani They are also useful in the treatment of thread worms No 2 is of medium size, for either vagina or rectum, and No 3 is indicated where a larger amount of boroglyceride is required in cases of chronic leucorrhœa, vaginitis or of uterine diseases in general The largest suppositories should not be used more than three nights in succession, and experience has taught me that the best results are obtained by using them every other night Boro glyceride is an excellent application for a lacerated cervix, spread thickly on the diseased surface It can also be spread on absorbent cotton, and introduced and applied in that manner The cleanliness and gentleness of this remedy, and the steady improvement resulting from the use of boro glyceride, will be very satisfactory to both patient and physician

Dr Storer considers that four general indications exist for vaginal injections 1 As a lavement for cleansing purposes 2 For the purpose of producing a deep seated effect for relieving chronic congestions 3 Where an exosmotic effect is desired, as in the use of saline and other solutions 4 Where a local effect is desired, corresponding with gargling for the throat, etc In the latter class of cases the recumbent position might be more advisable He thinks that vaginal injections are unquestionably too often prescribed, and that physicians are reckless in directing ingredients for vaginal injections that are of the most unsuitable kind, and often productive of lasting injury Sometimes even dangerous ingredients are used, creating instead of alleviating disease. Such injections are sometimes followed by a more serious disease than they were at first intended to relieve. The same discretion should be used in prescribing vaginal injections that one employs in treating the mucous membrane of the eye or fauces. Every gynecologist must have witnessed the deplorable effects resulting in almost ruined vaginal walls from too severe injections of such substances as alum, tannic acid, etc. With the most ordinary skill on the part of the medical attendant, the syringe which we recommend ought to be a safe one. It is well, however, to remember that serious injury has resulted from neglect to empty the air from the tube before inserting into the vagina. Care should be taken that no air enter the bulb or tube while filling the syringe. By using a bidet this accident is more readily avoided if plenty of water be used, but with an ordinary hand basin it is of frequent occurrence.

---

[1] The bidet is a triangular stool about sixteen inches high containing a porcelain basin which can be easily lifted out and cleaned The stool is peddle shaped the broad end for the support of the buttocks and narrow anteriorly It can be obtained at many of the house furnishing goods stores Incidentally it may be well to mention the fact that the bidet is useful for the treatment of rectal diseases of both sexes For bathing hemorrhoids or prolapsed ani it is certainly preferable to the pans so generally recommended A modest prejudice exists against the bidet many ladies disliking to use one since it is so well known that French women use them to prevent conception

Many syringes are so constructed that a pint or more of water answers for the entire "sitting," being used over and over again, becoming filthier and filthier each moment. Such machines have little to recommend them. A copious water supply and a copious stream are the most desirable features in a good vaginal injection, and a syringe which cannot accomplish this is simply worthless. Cheap syringes are commonly offered for sale because they are cheap. For a good vaginal syringe a fair price must be paid. In drawing attention to the dangers from careless vaginal injections it may be well incidentally to note the recklessness with which some medical men recommend intra-uterine injections. This is the more inexcusable, since so many general practitioners practice gynecology to a considerable extent. Intra-uterine injections are seldom justifiable, and then only when they can be employed by a safe instrument acting more or less on the principle of the double canula. For the vaginal injection with the syringe we recommend, the best possible ingredients are boro glyceride in solution, borax, and even common salt in suitable proportions. Much of the benefit derived by women from sea bathing, aside from the general constitutional tonic effect of sea side air, and salt-water baths, is the fact that the sea water does actually enter the vagina during the usual exercise of bathing, and exerts thereby a cleansing, healing effect upon the vaginal walls. While the possibility of such entrance of salt water has been denied by some, on the ground that the walls are too closely approximated to admit any water, the fact remains the same that water actually does enter, and that inquiries made have proved this beyond question, not only in the case of multiparæ, but of others, and even virgins. The closure of the vaginal walls is not like that of the closure of sphincter ani. Besides these preparations there are others which can be used in greater or less strength, according to indications. The large tube will be found often too large for unmarried women, and for such cases the rectal tube can be used, but generally speaking the larger vaginal tube is suitable where injections are found to be necessary. The use of the syringe cannot alone cure diseased vaginal walls, and the atomizer and other appliances must play their part, not to speak of the surgery necessary for the uterus and the special treatment needed in all uterine cases. In vaginal injections properly administered we have an invaluable aid in the treatment of many of the diseases of women, and a guard against the attacks of diseases to which woman is so liable.

In conclusion, the physician should be careful to advise against the prolonged use of vaginal injections during pregnancy, and also to caution patients against using injections of any kind during the menstrual period. To many these warnings may seem superfluous, but the physician of any experience must have seen much harm resulting from ignorance of these very simple laws, in medical attendants.

Newport, October 7, 1885.

SIMPLICITY AND ADAPTABILITY IN THE TREATMENT OF FRACTURES

BY GEO. N. MONETTE, M.D.,

OF NEW ORLEANS, LA.

In a former issue of THE JOURNAL Dr. John B. Roberts, of Philadelphia, made an especial mention and advocacy of simplicity, as also strict anatomical appreciation of surgical appliances, in the treatment of fractures. Text books, too often, bias the practitioner in his isolated field of labor, and he is often denied treatment of cases owing to his not being supplied with orthodox paraphernalia requisite for certain cases. Let each one, so called upon for surgical advice, only exercise his inherent ingenuity, and then make such an appliance as common sense and the anatomico surgical indication would point to.

The preservation of the integrity of the limb, both as appertaining to bony and muscular and integumentary tissues, must of necessity engage the attention of the attendant. Having a compound fracture, the appliance must be adapted with especial reference to immobility for the bone, as a comfortable exit at the seat of the laceration for all suppurative discharges, guarding cautiously against too great compression of the sympathetically inflamed tissue. This must not be actuated by any routine, as laid down in the books. I have been able to treat and control successfully all of my cases of fracture upon the impulsive plan, not by fixed laws relative to authorities, but as the case and common sense would indicate, save that, with Liston's long lateral splint for fracture of femur. The use of Liston's straight lateral splint for fractures of the femur, is confined by the indications for its use. In my experience, I have had one case of fracture of the femur which resulted with overlapping extremities, not through any fault of the splint, nor inaptitude on my part, but through a meddlesome daughter, who slackened the perineal strap after my morning (*daily*) visit, when I had at each visit drawn the strap taut. Her interference caused some irregularity, I had no recourse, hence my case was not a success.

In compound comminuted fractures the utmost care in the application of dressings must be exercised, and as to routine bandaging, the same must be rigidly dispensed with. I have treated such cases without a bandage, and have also departed from the prescribed course for such cases Each case develops features of its own, which necessitates a certain method of utilizing appliances, and the identical repetition as to seat of fracture in another case would reveal diverse phenomena Hence it becomes the imperative duty of the surgeon to devise his appliances suitable to his needs, exercising his individual ingenuity of adaptation, and with especial appreciation of the anatomy of the part involved in its mechanico mobility, normally, and after union of the fracture

As regards fracture of the femur in children, suppose we have a case in an infant six or eighteen months old What can be more cruel than a straight splint? My plan for treating these cases is to put them in a flexed position, similar to the sitting posture, and with extension of the anterior and posterior splints about the waist, and held by a band, and the lower extremities of the splints carried to or beyond the toes By this method there is the most rigid immobility of the limb, and with comfort to all parts enveloped by the bandages My first application of this form of splint was in the spring of 1868, and whenever a suitable case presents I utilize the identical form of splints, anterior and posterior, in conformity to a sitting posture

Each day develops some ingenious contrivance for every form of fracture, but it is incumbent upon the surgeon to dispense with inventions to a great extent and utilize his ingenuity conformably with indications of his particular case, and there will be neither fault nor deformity

Fractures of the clavicle offer some discouraging results, as the movements of the thorax (as in lying down) are prone to militate against permanent adjustment of any sort of dressing It seems to me that a little more simplicity is requisite, for instance, simply binding the arm to the thorax by a bandage In fractures of the clavicle in infants and very young children, the former particularly, I have pinned the sleeve of the arm of the fractured side to the dress anteriorly, or about the median line, across the chest Such treatment has resulted successfully, and with no more prominence of a callus than from the routine Fox apparatus, or that of any other specialist in surgical appliances This confinement is readily tolerated by children, and a little pain causes them to bear it patiently The nature of the fracture in children tends to confirm my method With diminished ossific development, the fracture is not distinct, hence the reapposition of the splintered fragments is readily accomplished, solidification takes place promptly, and immobility is attained sooner than in similar fractures in adults

I need not mention other fractures, as simplicity can be more readily appreciated in those enumerated than in those not mentioned, as the form of treatment is absolutely indicated Recovery and restitution are much more speedy and satisfactory, and at the same time careful inspection can be made by the attendant at opportune periods, without fear of compromising the progress of bony union

285 Camp Street

MEDICAL PROGRESS

DISINFECTANTS —The Committee on Disinfectants of the American Public Health Association conclude their report as follows The experimental evidence recorded in these reports seems to justify the following conclusions The most useful agents for the destruction of spore containing infectious materials are 1 Fire Complete destruction by burning 2 Steam under pressure 110° C (230° Fahr) for ten minutes 3 Boiling in water for one hour [1] 4 Chloride of lime A 4 per cent solution 5 Mercuric chloride A solution of 1 500

For the destruction of infectious material which owes its infecting power to the presence of micro-organisms not containing spores, the Committee recommend 1 Fire Complete destruction by burning 2 Boiling in water half an hour 3 Dry heat 110° C (230° Fahr) for two hours 4 Chloride of lime [3] 1 to 4 per cent solution 5 Solution of chlorinated soda [4] 5 to 20 per cent solution 6 Mercuric chloride A solution of 1 1000 to 1 4000 7 Sulphur dioxide Exposure for twelve hours to an atmosphere containing at least 4 volumes per cent of this gas, preferably in presence of moisture [5] 8 Carbolic acid 2 to 5 per cent solution 9 Sulphate of copper 2 to 5 per cent solution 10 Chloride of zinc 4 to 10 per cent solution

The Committee would make the following recommendations with reference to the practical application of these agents for disinfecting purposes

For Excreta —(*a*) In the sick-room For spore-containing material 1 Chloride of lime in solution, 4 per cent 2 Mercuric chloride in solution, 1 to 500 [6] In the absence of spores, 3 Carbolic acid in solution, 5 per cent 4 Sulphate of copper in solution, 5 per cent 5 Chloride of zinc in solution, 10 per cent (*b*) In privy vaults Mercuric chloride in solution 1 500 (*c*) For the disinfection and deodorization of the surface of masses of organic material in privy vaults, etc Chloride of lime in powder [6]

For Clothing, Bedding, etc —(*a*) Soiled under-clothing, bed linen, etc 1 Destruction by fire if of little value 2 Boiling for at least half an hour 3 Immersion in a solution of mercuric chloride of the strength of 1 2000 for four hours [8] 4 Immersion in a 2 per cent solution of carbolic acid for four hours (*b*) Outer garments of wool or silk, and similar articles, which would be injured by immersion in boiling water or in a disinfecting solution 1 Exposure to dry heat at a temperature of 110° C (230° F) for two hours 2 Fumigation with sulphurous acid gas for at least twelve hours, the clothing being freely exposed, and the gas present in the disinfection chamber in the proportion of four volumes per cent (*c*) Mattresses and blankets soiled by the discharges of the sick 1 Destruction by fire 2 Exposure to superheated steam—twenty five pounds pressure—for one hour (Mattresses to have the cover removed or freely opened) 3 Immersion in boiling water for one hour 4 Immersion in the blue solution (mercuric chloride and sulphate of copper), two fluid ounces to the gallon of water

---

[1] This temperature does not destroy the spores of *B subtilis* in the time mentioned but is effective for the destruction of the spores of the anthrax bacillus and of all known pathogenic organisms

Should contain at least 25 per cent of available chlorine

[3] Should contain at least 3 per cent of available chlorine

[4] This will require the combustion of between three and four pounds of sulphur for every 1 000 cubic feet of air space

The addition of an equal quantity of potassium permanganate as a deodorant and to give color to the solution is to be recommended (*Standard Solution No* 2)

[6] A concentrated solution containing four ounces of mercuric chloride and one pound of cupric sulphate to the gallon of water is recommended as *Standard Solution No* 3 Eight ounces of this solution to the gallon of water will give dilute solution for the disinfection of excreta containing about 1 500 mercuric chloride and 1 125 of cupric sulphate

[7] For this purpose the chloride of lime may be diluted with plaster of Paris or with c[illegible]an well dried sand in the proportion of one part to nine

[8] The blue solution containing sulphate o[illegible] two ounces o[illegible] the con[illegible] for this purpose

For Furniture and Articles of Wood, Leather, and Porcelain[1]—Washing, several times repeated, with 1 Solution of mercuric chloride, 1 1000 (The blue solution, four ounces to the gallon of water, may be used) 2 Solution of chloride of lime, 1 per cent 3 Solution of carbolic acid, 2 per cent

For the Person —The hands and general surface of the body of attendants, of the sick, and of convalescents at the time of their discharge from hospital 1 Solution of chlorinated soda diluted with nine parts of water (1 10) 2 Carbolic acid, 2 per cent solution 3 Mercuric chloride, 1 1000, recommended only for the hands, or for washing away infectious material from a limited area, not as a bath for the entire surface of the body

For the Dead —Envelop the body in a sheet thoroughly saturated with 1 Chloride of lime in solution, 4 per cent 2 Mercuric chloride in solution, 1 500 3 Carbolic acid in solution, 5 per cent

For the Sick Room and Hospital Wards —(*a*) While occupied, wash all surfaces with 1 Mercuric chloride in solution, 1 1000 (the blue solution containing sulphate of copper may be used) 2 Chloride of lime in solution, 1 per cent 3 Carbolic acid in solution, 2 per cent (*b*) When vacated Fumigate with sulphur dioxide for twelve hours, burning three pounds of sulphur for every 1,000 cubic feet of air space in the room, then wash all surfaces with one of the above mentioned disinfecting solutions, and afterward with soap and hot water, finally throw open doors and windows and ventilate freely

For Merchandise and the Mails[2]—The disinfection of merchandise and of the mails will only be required under exceptional circumstances, free aeration will usually be sufficient If disinfection seems necessary, fumigation with sulphur dioxide, as recommended for woolen clothing, etc, will be the only practicable method of accomplishing it

For Rags —(*a*) Rags which have been used for wiping away infectious discharges should at once be burned (*b*) Rags collected for papermakers during the prevalence of an epidemic should be disinfected before they are compressed in bales by 1 Exposure to superheated steam (twenty-five pounds pressure) for ten minutes 2 Immersion in boiling water for half an hour (*c*) Rags in bales can only be disinfected by injecting superheated steam (fifty pounds pressure) into the interior of the bale The apparatus used must insure the penetration of the steam to every portion of the bale

For Ships —(*a*) Infected ships at sea should be washed in every accessible place, and especially the localities occupied by the sick, with 1 Solution of mercuric chloride, 1 100 (the blue solution heretofore recommended may be used) 2 Solution of chloride of lime, 1 per cent 3 Solution of carbolic acid, 2 per cent The bilge should be disinfected by the *liberal* use of a strong solution of mercuric chloride (the concentrated solution—"blue solution" of this salt with cupric sulphate may be used) (*b*) Upon arrival at a quarantine station an infected ship should at once be fumigated with sulphurous acid gas, using three pounds of sulphur to every 1,000 cubic feet of air space, the cargo should then be discharged on lighters, a liberal supply of the concentrated solution of mercuric chloride (four ounces to the gallon) should be thrown into the bilge and at the end of twenty four hours the bilge-water should be pumped out and replaced with *pure* sea-water, this should be repeated A second fumigation after the removal of the cargo is to be recommended, all accessible surfaces should be washed with one of the disinfecting solutions heretofore recommended, and subsequently with soap and hot water —*Report of the Committee on Disinfectants of the Amer Pub Health Association*

THE PREVENTION OF MAMMARY ABSCESS —DR A W EDIS, in a note on this subject, says It being believed that friction of any kind, in the large majority of cases, rather tended to produce than prevent mammary abscess it was long since discarded The application of a long strip of belladonna plaster, sixteen or eighteen inches long and six or eight inches deep, with round apertures, so as to leave the nipples free, tightly across the chest, the breasts being brought well up towards the median line, for many years was the only resource adopted, beyond careful regulation of the diet, abstention from fluids, gentle purgation, etc This method never failed, but it was often found that the smell of the belladonna produced so much nausea in delicate patients as to preclude the employment of it Thinking that, in all probability, the pressure exerted, contributed greatly to the advantage derived, I was induced to rely upon a few turns of a rib bandage, or the application of a thin towel or diaper across the chest, the breasts being brought well towards the sternum Since adopting this method, I have never known it fail Not a single instance of mammary abscess has occurred in a long series of cases, extending over several years The only precaution requisite is to apply the pressure on the second day following parturition, before the breasts begin to fill, and to see that the whole of the glands are included

It is well to elevate the shoulders somewhat more than usual, and not to allow the bed cloths to cover the upper part of the chest, the sheet alone sufficing to prevent any risk of chill Restriction as to the amount of fluid, for the first few days, and attention to the bowels, are all that is requisite to ensure success Some little inconvenience, a feeling of tightness, or burning pain, is often experienced, but if the pressure be maintained no harm results, and within the course of a few days, the turgescence subsides, and the difficulty is at an end In order to keep the bandage or towel from slipping down, a shoulder strap from back to front, or merely pinning the bandage to the night dress, suffices Where the secretion of milk seems to be unusually abundant, a mixture of bromide and iodide of potassium may be prescribed with benefit In only a few instances has it been found requisite to draw off a small quantity of milk, by means of a breast pump or exhausted soda water bottle, and this only once or twice

---

[1] For articles of metal use Solution No 3

[2] In order to secure penetration of the envelope by the sulphur dioxide all mail matter should be perforated by a cutting stamp before fumigating

I venture to think these remarks may prove of value to many, as I not unfrequently see instances of mammary abscess brought on, I verily believe, by the old fashioned method of rubbing and irritating the breasts —*British Medical Journal*, Nov 7, 1885

HYPNONE AS A HYPNOTIC —The fanciful name hypnone has been applied to methylphenylacetone At the request of M Dujardin Beaumetz, who insists that it should be used only in cases of sleeplessness from over excitement of the brain, and not where there is pain, M Pierre Vigier (*Gaz hebdom de Med et de Chir*) has experimented with regard to its administration The amount necessary to produce sleep varies from four to ten drops, which should be taken all at once, for divided doses do not succeed The drug is scarcely soluble in water, and but slightly soluble in glycerine, but dissolves readily in alcohol A syrup may be made in the following proportions

Hypnone	1 drop,
Ninety per cent alcohol	15 grains,
Syrup of orange flowers	75 "
Syrup of cherry laurel	14 "

Let the drop of hypnone fall into the alcohol, add the syrups, and keep in a tightly-stopped bottle In like manner an elixir may be made of the following ingredients

Hypnone		1 drop,
Sixty per cent alcohol, Syrup of Mint	each	45 grains

The taste of these preparations is said to be very bearable The drug itself has a very hot taste, and its odor reminds one of essence of bitter almonds, with a suggestion of wintergreen —*New York Medical Journal*, Dec 19, 1885

NERVE SUTURE, WITH IMMEDIATE RESTORATION OF FUNCTION —One of the most remarkable results of the suture of a nerve ever reported is given by SURMAY, in the *Archives Gen de Medecine*, for Oct 1885 The case was that of a man who had received a cut above the wrist, resulting in abolition of the function of the median nerve For some time no attempt had been made to correct the defect Then electricity was tried without result Six months after the accident, Surmay resected about three quarters of an inch of the nerve, and joined the cut ends with a fine carbolized catgut thread, which had been ingeniously inserted before the intermediate portion was cut out The function of the nerve was reestablished within twenty four hours! The parts which had before been affected—the second phalanx of the thumb and the two terminal phalanges of the index and middle fingers—were found to have wholly recovered their general and tactile sensibility, while the sensibility to pain and temperature had returned in the thumb and in the upper half of the phalanges of the other fingers involved Complete restoration followed after several months

This remarkable case furnishes a strong support to operative interference in other cases than those in which loss of function results from traumatic division of a nerve, for in this one the nerve was not found divided, but the part under the wound was occupied by an enlargement which was formed by pure hypertrophy of the neurilemma It is always surprising that the cicatricial changes which must take place in or immediately adjacent to, a resected nerve, should have so little effect in disturbing the result of the operation In the case mentioned, it seems to have had some disturbing influence, although this passed off with time Further, this case is interesting as raising questions in physiology which will bear close study, namely, as to the reinstatement of one part of the function of a nerve while another remains in abeyance, as well as in regard to the relation of the different forms of sensation, which are commonly divided into common sensation or sensation of pain, and the tactile sense, which includes appreciation of changes in temperature As Surmay's case seems to have been studied with great care, and to present many of the conditions of scientific accuracy, it may contribute materially to our knowledge of the physiology of the nerves —*Medical News*, Dec 19, 1885

GRADUATED BATHS IN TYPHOID FEVER —DR J PEDLOW, in a note on this subject, says During my last year in India I used a graduated bath in all cases, as a rule, where the temperature reached 102 5° at 3 o'clock in the afternoon, and was rising I had a special bath made for this purpose, a little over five feet long, and rather shallow The patient, rolled in a thick blanket, was lifted into it, and the head rested on a pillow in the bath The water was usually at a temperature of 86° Fahr , instead of reducing it, it was gradually brought up to 92° and 93° By this means, when the patient's temperature remained high, I was able to keep them in the bath for an hour or more without much feeling of chilliness The tendency to the latter was also often obviated by keeping the hands in an India rubber bag filled with hot water The temperature was frequently taken in the mouth Many patients in whom, owing to delirium, this could not be noted before immersion, became quite tranquil in the bath, and the observation was easily made In this way, I used it in seven very severe cases in the summer and autumn of 1883, in Bangalore, at the infantry station hospital, of these, six recovered In the case which died, it was only used twice, at a time when the bowel, as indicated by the stools, was in a gangrenous condition, and when the case was considered hopeless When we look at the very early period at which cerebral and intestinal lesions appear in severe cases of Indian enteric, it becomes the more imperative that the bath should be early resorted to, and systematically continued, morning and afternoon, as long as the temperature runs high; a marked fall of two or more degrees will usually occur three-quarters of an hour in a bath of about 90° F. In other respects, improvement is noted; the dry parched lips become moist and softer, delirium disappears and the intellect clears up. I have no doubt that if the bath treatment, as laid down in most text books, or in the way I have briefly noted, were more frequently resorted to, under the careful personal supervision of the medical officer in charge of the case, the mortality of this fever would be very much reduced in India.—*Brit. Med. Jour.*, Nov. 28, 1885.

The Physiology of Hepatic Colic.—N. P. Simanowsky, (*Zeit. Klin. Med.*, Band V.), wishing to clear up the physiology of hepatic colic, has recently undertaken a series of experiments upon dogs. He first established a biliary fistula, and, afterward, submitted the gall bladder to different forms of irritation. As a result of his experiments, the following conclusions were reached:

1. The introduction of electrodes or any other foreign body into the gall-bladder produces violent pain.
2. When the electrodes are introduced or withdrawn, pain, similar to that caused by spasmodic contraction of the walls of the gall bladder is produced.
3. The pulsations of the heart are increased in frequency under the influence of feeble electric currents. They are diminished by strong currents, and the cardiac rhythm is disturbed.
4. When the electrical stimulation is maintained for a considerable period, the cardiac actively diminishes. Under the same conditions the same effect is observed with feeble currents.
5. Electrical excitation increases the frequency of respiration (twenty to seventy respirations per minute). Strong excitation causes a momentary arrest of respirations.
6. The rectal temperature is elevated during excitation. There is no relation between this effect and violent movements on the part of the animal.
7. The temperature of the skin, taken at symmetrical points presents great variation under such excitation of the gall-bladder, being frequently elevated on one side and depressed on the other.
8. At the termination of such experiments, paresis of the posterior limbs was not infrequently observed. In some cases this condition persisted for several months.
9. Excitation of the gall bladder frequently produced vomiting.
10. Excitation always produced increased blood pressure, provided that the vagus had not been previously divided in the neck.—*Revue des Sciences Medicale*, July, 1885.

Strychnia in Nervous Disease.—In an article on this subject, in the *American Journal of the Medical Sciences*, October, 1885, Dr. Landon Carter Gray says: In five cases of progressive muscular atrophy I have given strychnia in doses up to gr. $\frac{1}{25}$. In all of them it acted as a remarkable stimulant, inducing such a sense of well being that most of them have felt the need of it when it was discontinued, so that several take it continuously. In one very marked and typical case $\frac{1}{30}$ to $\frac{1}{25}$ of a grain has been taken daily three times for nearly two years. In none, however, was there any real improvement. Dr. S. Weir Mitchell, in his work on the treatment of neurasthenia by rest and forced feeding, recommends strychnia in doses of gr. $\frac{1}{30}$ at the time when patients are to be taken out of bed. I have pursued this plan in a number of such cases, and have satisfied myself that it is invaluable. But, singular to say, three cases of neurasthenia, which were treated in the general way, bore strychnia in gr. $\frac{1}{10}$ doses badly, severe toxic symptoms being induced in two. I have never felt it safe to exceed gr. $\frac{1}{20}$. Indeed, even when giving $\frac{1}{50}$ or $\frac{1}{40}$ of grain, I have always been on my guard, because I have on several occasions found the action of the medicine to be cumulative. It was notably so in the case of transverse myelitis with contracture. Nor have I ever been able to dispossess myself of scepticism as to the benefits to be obtained from a toxic dose, which may possibly vary in amount with each individual and each disease, and I have therefore refrained from increasing the dose beyond the first toxic symptoms.

Extensor Tendons of the Fingers.—Besides some interesting researches on the synovial sheaths under the posterior annular ligament, Dr. Wenzel Gruber has recently described in Virchow's *Archiv* a tensor ligamenti carpi dorsalis, not hitherto observed. It existed in both fore arms of a woman. It was short and fusiform and arose from the ridge of the ulna between the extensor ossis metacarpi and the extensor secundi internodii pollicis, lying between them, above and between the former muscle and the short extensor of the thumb lower down. It ended in a short ribbon-like tendon, which was mostly lost in the posterior annular ligament, but some of the fibres were attached to the bony ridges which bordered the broad grove for the radial extensors. Dr. Gruber has also described a case where a peculiar arrangement of the extensors of the fingers existed. He had previously noted that an extensor digiti quinti et quarti proprius existed in about 10 per cent. of several hundred subjects under his inspection, though often unilateral. In this case, both the special muscle existed and also a distinct division of the muscular part of the common extensor, supplying a tendinous slip to the ring finger in the left hand and another to the little finger. As those fingers also received a tendon each from the main part of the common extensor, they were unusually well supplied. The supernumerary extensor, springing from the common extensor, ran in a special sheath under the posterior annular ligament. In the language of the English dissector, there were in this case two tendons supplied to the ring and little fingers from the common extensor, whilst the extensor minimi digiti divided into two tendons, one going to the ring, the other to the little finger. A tendinous band ran from the first metacarpal bone to the back of the capsule of the metacarpo phalangeal joint of the index finger.—*British Medical Journal*, Nov. 25, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, JANUARY 2, 1886

THE DURATION OF THE ACTION OF MEDICINES

"Does our present knowledge support the view that medicines act during definite periods, that is, can we rely on a given dose of a drug influencing the organ in which it acts for the same space of time in different individuals, or on the same individual at different times?" Such is the question asked by DR D J LEECH in a most interesting introduction to a discussion before the recent annual meeting of the British Medical Association The question is not only highly interesting in itself, but far-reaching, and one to which but too little attention has been given It directly involves another question, Is not the frequency with which doses of medicine are given, in a great many cases, simply a matter of routine? "At the present time one of the leading objects of the therapeutist is to alter the functions of certain tissues or organs, temporarily or permanently Sometimes we aim at restoring the normal functions of parts, sometimes we desire to modify functions for a time, and thus neutralize evils arising from a disordered condition of other parts on which we cannot act But whether our purpose be to restore or modify, we know it can rarely be attained except by acting on the tissues or organs we wish to influence, with a certain degree of continuity, and we should endeavor, therefore, to repeat our medicines in such doses, and at such intervals, that the continuity of action we desire may be attained"

Our knowledge of the time during which a drug will act on an organ, though it should be the basis of our intervals for administration, is unfortunately but too limited, and as regards the causes which lead to variations in the duration we may be said to know almost nothing There are so many factors in the case, and so many causes of error, that the difficulties in the way of exact determination are very great The time at which absorption begins must vary in given cases, and when medicines are given *per os* no action can take place until absorption begins Some preparations are less soluble in the stomach than others, even of the same drug Or a very slight alteration in the condition of the stomach may cause delay in this respect When the action of a drug is unduly delayed we naturally attribute it to delayed absorption Again, the action may be delayed by insusceptibility to the drug in a given case, or diminished susceptibility of the organ in the same case at different times Still further, "when drugs act in a similar manner on the same tissues, the relative periods of their activity may vary distinctly" This is shown by comparing the duration of the action of ether and alcohol, the two drugs affecting the same tissues and functions, and the symptoms of intoxication produced by each being the same

And here it may be pointed out that in spite of our want of knowledge on this subject, we have learned by experience that there is a relative uniformity in the period of activity of many drugs, while ammonia acts quickly on the heart, its effects are evanescent, but while the tonic effects of digitalis appear but slowly, they last for a long time "Of our diuretics, purgatives, and emetics, some act for a shorter, some for longer, period The diuretic effects of caffein, for example, soon cease when we stop the administration of this drug, whilst the increased flow of urine which is produced by digitalis usually goes on for a long time, sometimes for several days, after the medicine has been discontinued The difference in the period during which these two drugs act, may of course depend on the fact that they exert their influence on different tissues Caffein, it has been suggested, stimulates the tubular epithelium, whilst digitalis causes diuresis through its effects on the vascular system But the relative difference in the duration of action must certainly be dependent on the fact that each influences the tissues it affects for a more or less definite period of time" In this connection may be mentioned the resemblance between the phenomena produced by amyl nitrite and the nitrites and nitro glycerine, as pointed out by Brunton, Cash, Murrell, Hay and others Though this resemblance is very strong, the duration of the effects of amyl nitrite is very much shorter than in case of the other drugs, and Hay has shown that the influence of sodium nitrite on arterial tension is much more persistent than that of nitro glycerine

Dr Leech's experiments on the duration of the action of drugs were limited to the effects of a very few drugs on arterial tension, the drugs being amyl nitrite, ethyl nitrite, nitro glycerine, sodium nitrite, potassium nitrite, and helleborein The phenomena produced by the nitrites and nitro-glycerine vary considerably in different individuals While some persons can take five drops of a 1 per cent solution of nitro glycerine, or even more, without unpleasant effects, others are disagreeably affected by one drop The persons selected for experimentation were of different susceptibility, and normal tracings were taken previous to the administration of the drugs The subjects were all free from cardiac diseases, and the observations were made, so far as possible, under similar conditions as to time of day, food, etc With amyl nitrite the influence on the pulse commences immediately after the inhalation, and the tension is reduced to its lowest point in from thirty to sixty seconds, "the blood-pressure then rises again, and usually attains its ordinary height in a minute and a half," as Murrell states In some cases, however, from two to four minutes elapse before the pressure rises In quite a number of cases, also, the tension may again fall after the first apparent recovery, and the return to the normal does not take place for eight or ten minutes In still other cases there may be a slight fall after the second return to the normal, and the effects will continue for twenty minutes or half an hour Alternations of this kind, says Dr Leech, occur during the action of all the nitrites, and he refers to them as oscillations In one case the effect of amyl nitrite was traceable for more than an hour While, therefore, the effects of this drug vary considerably, "its very marked tension-reducing influence never lasts more than one and a half to two minutes, but a slight depression of blood pressure is commonly present for a longer period, and not only does the duration of the influence of the amyl-nitrate differ in different people, but it is also variable in the same individual at different times"

With nitrite of ethyl the tension is depressed for a much longer time than with nitrite of amyl, and in quite a different manner "A dose of 25 minims of a 25 per cent solution, in alcohol, causes, in those susceptible to the influence of the nitrites, a slight fall in tension within a few minutes, but, as a rule, the greatest effect is not noticed until from six to fifteen minutes nave elapsed For twenty or thirty minutes longer, the tension continues low Then a return towards the normal takes place, usually with oscillations I have traced the effect of this nitrite for two hours Where the dose is small, or in those not susceptible to the action of the nitrites, hardly any fall is seen during the first half hour, and the normal tension is regained in about an hour and a half" From some experiments made with spirit of nitrous ether, Dr Leech believes that seven or eight minims of pure ethyl nitrite will "usually keep the tension depressed for at least forty-five minutes, in some people for rather more than an hour," and he thinks that the effect on the circulation often persists during the whole of the second hour But while the depression of tension is more prolonged than in the case of amyl nitrite, it is not so great Nitro glycerine not only acts more powerfully and quickly than ethyl nitrite, but its effects are more prolonged "A single drop of a 1 per cent solution causes a fall in the pulse tension in one and a half to two minutes, and in three or four minutes the fall is well-marked" The pressure continues low for about ten minutes, or a little longer, then gradually rises to almost normal in about half an hour But on account of the oscillations the normal is not perfectly reached until the lapse of an hour or an hour and a half As already stated, however, this drug affects some persons more powerfully and for a longer time than others With sodium and potassium nitrite—the alkaline nitrites—while the effect is not so quick as with nitro glycerine, the duration of the effect seems to be more prolonged Dr Leech estimates that "whilst the average duration of five grains of an alkaline nitrite in ordinary individuals is about five and a half hours, the effect of three grains does not last so long by half an hour"

While it is seen by the preceding sketch of Dr Leech's paper, which is to be found in the *British Medical Journal*, of Nov 28, that but a very limited number of drugs were experimented upon, and the the experiments limited to their effects on arterial tension, we must regard the contribution as one of great value, and as in part opening the way to very important work It would seem, too, that the question of the duration of the action of drugs must be primarily included under the department of pharmacology, and thence be extended to the duration of the action of medicines in disease And certainly, while the field is practically boundless, there are mines of wealth at every turn

AMERICAN MEDICAL ASSOCIATION, ITS NEXT ANNUAL MEETING

As the next Annual Meeting of this important National organization will commence on the morning of the first Tuesday in May, 1886, in St Louis, Missouri, only four months remain for those who are contemplating the presentation of papers, reports, or any matter of interest, to complete their preparation. To ensure a profitable meeting, and especially one of high scientific interest, it is necessary that preparations should be commenced early and a systematic programme of work arranged for each Section. The ordinary routine of miscellaneous business, with the addresses of the Chairmen of Sections, usually fully occupy the general morning sessions during the four days occupied by the Annual Meeting. Indeed, unless these officers, in the preparation of their annual addresses, adhere more closely than usual to the requirements of the by-laws, it will be impossible to crowd them all into the time allotted to the general sessions, and, as on former occasions, some will be read only by their titles and referred, a practice which should not be encouraged.

The by-laws require from the Chairman of each Section an Address on the discoveries and improvements made in the branches included in his Section, during the preceding year, and that not more than *forty minutes* shall be consumed in its delivery. Two objections have been made by former Chairmen of Sections against a literal compliance with the requirements of the rule. The first is that the actual discoveries and improvements made in most of the branches of medical science, in any one year, are not sufficient to constitute the subject of an address; and the second, that all such discoveries are at once published in the medical periodicals, and consequently their re-statement in a public address would be only repeating what is already familiar to the profession. A closer examination will show that neither of these objections are well founded.

A careful student of current medical literature cannot fail to discover, during every year, items of progress, proposed changes, and suggestions supposed by their authors to be new, in some parts of the field covered by any one of the Sections, sufficient to constitute the basis of a most interesting discourse of thirty or forty minutes. Again, while it may be true that every new idea or supposed discovery, and every suggested improvement, finds its way to the profession through the columns of the medical periodicals, it is not true that every member of the profession takes all these periodicals or finds time in the midst of the practical duties of the profession to examine critically those he does take. Consequently some items of importance escape his attention, and some that he does observe are of such a nature that he has not time to examine the evidences on which their claims to importance rest. If the Chairman of a Section should simply cull from the pages of the medical periodicals a list of the alleged discoveries and items of advancement, we admit that his discourse would possess comparatively little interest. But it should be his object not only to present such a list, but to critically examine and point out the evidences on which each item rests for its claims to our confidence. He should show what items are really new and what are merely old ideas or modes of practice, clothed in the novel phraseology of a new theory. He should also critically examine the methods of investigation by which alleged facts or conclusions have been reached, showing defects where such exist, and suggesting remedies for them. A series of such addresses, each kept rigidly within the limits of time prescribed by the by-law, delivered by the Chairmen of the Sections before the members of all the Sections in the general sessions, would afford not only a most interesting and profitable annual review of the various departments of medicine, but their subsequent publication in THE ASSOCIATION JOURNAL would bring the same to the attention of the whole membership and exert an important influence in promoting better methods of investigation and avoiding conclusions based on only a partial observation of the facts.

Perhaps the most important part of the work of preparation for the next Annual Meeting, however, is that relating to the programme for each of the Sections. If this is left entirely to the voluntary offering of papers, experience has shown that while some Sections will have more than there will be time to hear, others will be comparatively unoccupied. To avoid this, the Chairman and Secretary of each Section should invite a sufficient number of thoroughly competent parties to prepare contributions on important topics, to secure at least one or two leading papers for each of the three sessions of the Section, and one or two equally well-qualified members to open the discussion of each paper. Having secured this much, they can safely trust to voluntary contributions for filling up all the rest of the time profitably. If this part of the work has not yet been attended to, the officers of the Section should lose no more time before engaging earnestly in the work before them, remembering that the best answer to all those who have been indulging in depreciative remarks in regard to the Association, is a meeting in St. Louis characterized by earnest, thorough and important scientific work in every Section. To facilitate the correspondence, we have placed under the head of "Association Items," the names and address of the general officers of the Association and of the several Sections.

SOCIETY PROCEEDINGS

AMERICAN PUBLIC HEALTH ASSOCIATION

Thirteenth Annual Meeting, held at Washington, D C, December 8, 9 and 10, 1885

(Continued from page 714, Vol V)

Wednesday, December 9—Second Day

Afternoon Session

Hon Erastus Brooks in the Chair

Dr Granville P Conn, of New Hampshire, read the

REPORT OF THE COMMITTEE ON STATE BOARDS OF HEALTH

The report concludes as follows

First That it is the judgment of the Committee that in carrying out the object of their creation it is necessary to have a conference of delegates from State Boards of Health at least once a year for the purpose of consultation and to promote unity of action on matters essential to public health, the prevention of epidemics and the most efficient means of instructing the people in sanitation

Second The Committee would suggest that the most suitable occasion for holding this conference would be during the annual meeting of the American Public Health Association, and that our President and Secretary arrange the time of the meeting in connection with the Executive Committee of the American Public Health Association so as best to promote the interests of the Association and the conference

Third Any conclusions of this conference that are of interest to the public shall be reported by the Secretary to the American Public Health Association, through the standing Committee on State Boards of Health

REPORTS OF STATE BOARDS OF HEALTH

Dr J N McCormack, Secretary of the State Board of Health of Kentucky, submitted a brief report of the operations of that Board for the past year, and indicated an increased interest in health on the part of both the profession and people of that State His Board attached the utmost importance to the recently enacted law providing for instruction in regard to the plain laws of health in all public schools, but has not been successful in finding any text-book suited to this purpose—most of those now in existence being only treatises on anatomy and physiology, with deficient, crude or misleading instruction on the important subject of the prevention of disease He referred to the recently published account of the investigation of the fever endemic in Louisville, and stated that no practical result had so far followed except the worthless one to substitute tube wells seventy-five feet deep for those now in use

In the discussion that ensued, the various States were called Dr Kennedy, of Iowa, said that the law of his State gave the Board almost absolute power to vaccinate everybody under 21 years of age

Dr Gerrisch, of Portland, Maine, reported how the Board of Health of his State had been organized last year, but three votes out of 181 in the Legislature being opposed to it The sum of $3,000 was appropriated for it the first year He thinks $5,000 will hereafter be appropriated annually, as well as $5,000 additional to be used as an epidemic fund But two cases of small pox have occurred in his State since the outbreak of the disease in Montreal

Dr Henry B Baker, of Michigan, added that the Board of his State and the people have been unusually active during the past year in taking all the necessary precautionary measures to prevent small-pox and other contagious diseases

Dr Cox, of Missouri, said the Board of his State had all things well under headway to avert any epidemic of small pox or any other epidemic disease The water supply was well arranged, and wholesome water was almost universally used throughout Missouri

Dr G P Conn supplemented his paper by the remark that the work in his State Board had been similar to that of other States The people there demand protection through the State Board of Health But one family, coming direct from Montreal, has had small pox in his State for many months, and that occurred in Manchester, although 1,000 people had come to Manchester from an infected district in and about Montreal

Dr Ezra M Hunt, of New Jersey, said his Board had been well sustained by the people The report on tenement house inspection and inspection of schools has been put in book form and was favorably received

Hon Erastus Brooks, of New York, said that their Board was a very efficient and thorough organization In 1,000 towns, 240 villages and twenty four cities there are local boards of health In a number of the cities they are distinct and independent organizations, and independent of the general law They are trusted to establish their own local board, and at least one competent person is selected to take care of the interests of the locality The appropriation for the State Board of Health was $20,000 for the past year The Secretary receives $3,500 a year, and he is the Board's executive officer The city of Brooklyn expends about 75,000 a year for sanitary purposes

Dr Thos F Wood, of North Carolina, stated that the Board of Health of his State had been reorganized since the last meeting of the Association, the legislature of January, 1884, appropriated $2,000 for the Board, and $2,500 as contingent fund to experiment on drinking water, etc Of ninety four counties in North Carolina, fifty counties have organized local boards, and a plan for registering vital statistics

Dr R Harvey Reed, of Ohio, thinks that a State Board of Health will ultimately be established in Ohio In his State there have been divisions upon this subject, even in the State Medical Society Some bills presented in the legislature have been too short and others too long A committee is now at work from that Society preparing a bill to present to the Legislature Another thing to contend with is that many quacks are in that State They work against the organization of a State Board These quacks are very numerous, being driven there from adjacent and other States of the Union

Dr Ashman, of Cleveland, Ohio, said there were many local boards of health organized throughout Ohio, $25,000 to $28,000 were expended yearly at Cleveland by the local board He thinks the prospect is not very good at present for the organization of a State Board

Dr Fisher, of Rhode Island, said that in his State, advancement is being made in public sentiment and in the practical performance of measures taken for the care of the public health, although personal liberty is what the people of his State dote upon, taking the view that a man should not be deprived of his liberty, and should live in as much filth as he likes Vaccination has been thorough in at least two thirds of the towns throughout his State since the epidemic of small pox has broken out in Montreal Rhode Island requires that pupils before entering school must be vaccinated, hence the State is well protected against small pox

Dr G B Thornton, of Memphis, said the State Board of Tennessee had been very materially strengthened at the last legislature, by two acts, by the first of which $10,000 a year and $5,000 are to be used exclusively for quarantine purposes The second provides for the creation of county health officers Such an officer must be a physician, and he reports to the Secretary of the State Board any case of cholera or any other infectious or contagious disease

Dr Swearingen, of Texas, said that in Mexico there were ten cases of small-pox to one case in Canada, yet but few cases ever occur in Texas, and no epidemic of any magnitude has ever broken out in Texas This is on account of the inspection service at El Paso

Dr J G Cabell, of Richmond, Virginia, stated that about fourteen years ago the Virginia State Board of Health was organized upon the basis that it should be at no expense to the State The Board consists of seven members No child in Richmond is allowed to attend school unless it has been successfully vaccinated

Dr James E Reeves, of Wheeling, briefly stated that West Virginia owed this Association much for its State Board of Health In 1881 there was not a health board worth the name in the entire State, while now, a board is organized in all the counties and municipalities throughout the State

Dr J T Reeve, of Appleton, Wis , said that some progress has been made in his State during the past year, stimulated by the anticipated approach of cholera $30,000 was appropriated by the last legislature, and $15,000 for each of two years before it meets again, as a contingent fund for cholera or other epidemics, although the State has been free from epidemics of all kinds Small pox has visited the State but two or three times during the past year, but it was confined to a single case in each instance The two cases came direct from Montreal, and prompt measures stamped it out From the last two cases there arose, in all, eighteen cases, with a result of five deaths, which occurred in a town of 10,000 people

Dr I S Covernton, of Toronto, Canada, said that out of 660 local boards of health that had been established in Ontario, 520 had sanitary inspectors Disposal of sewage is being properly attended to throughout his Province $3,000 a month for the past four months has been expended to stamp out small pox in the Province

Dr Wm H Hingston, of Montreal, said that 250 boards have been organized during the past two months in the Province of Quebec

Evening Session

The President in the Chair

Dr Benjamin Lee, of Philadelphia, read a paper entitled

THE DEBIT AND CREDIT ACCOUNT OF THE PLYMOUTH EPIDEMIC,

on the Credit side being placed the "State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania," and the following on the Debit side Cost of illness of 1153 cases, $59,100 17, expenses of hospital, $8,000, loss of earnings during sickness, $30,020 08, capital represented by loss of income, of 114 persons who died, at three per cent *per annum*, $613,984, total, $711,104 25

The total number of sick was 1153, the population being estimated at about 8,000 Of the number attacked with the disease 114 died The proportion of deaths in the hospital was about three per cent , which is unsurpassed by the record of any other hospital in the world The expenses incurred by the epidemic are estimated at $67,100 17, of which amount $8,000 was consumed in running the hospital Of those who were ill with the disease and recovered the loss of earnings during illness was found to be $30,020 08 Thus the total cost of the epidemic is reckoned at $97,120 28 By the 114 deaths a monthly earning of $1,534 96 ceased, showing a loss of $18,419 52 per year in incomes The State Legislature contributed $5,000 for the maintenance of the hospital The State of Pennsylvania therefore disbursed directly from its treasury for the relief of the sufferers from this single outbreak of preventable disease, precisely the same amount of money that the Legislature now allows for the expenses of the Board which is to have the supervision of the health interests of her people, for an entire year And this brings us to the credit side of the Plymouth epidemic But for that sad calamity the efforts of physicians and philanthropists to obtain the establishment of this essential department of every civilized State would have been as unavailing as at any time during the past ten years This practical demonstration was an argument which the dullest could appreciate, the most bigoted could not withstand And so, out of the agonies of Plymouth the State Board of Health of Pennsylvania was born

Dr E M Hartwell, of the Johns Hopkins University, read a paper on

THE GERMAN SYSTEM OF PHYSICAL EDUCATION

He prefaced his paper by several well chosen remarks upon sports, gymnastics, physical training, etc , in Germany Not until 1860 was physical training made obligatory in the public schools in Germany, and three or four years ago in Prussia it was also made obligatory for girls It is obligatory for the boys in the Prussian schools to train two hours every day They begin at the age of 6 and continue it until they are 19 or 20 years of age The system is better organized in cities than in the country In Berlin in 1881 there were 15,998 pupils in the high schools, of which, in round numbers, 11,000 were boys and 4,000 were girls Having described the origin of "turning" or gymnastics among the Prussians and the consequent Turnvereins, so numerous throughout Germany, he turned to the subject in its present national aspect He said that in the German schools, both for boys and girls, gymnastics are compulsory, and in 1879, out of all the scholars in the classical and high schools only ten per cent were excused from the two hours' weekly class of physical gymnastics, and those only on the certificate of a physician stating that it would be injurious for them to attend the class There are in Berlin ninety-eight gymnasiums, and in 1880 and 1881, of the $1,760,000 appropriated by the city for educational use, one thirtieth of that amount was expended for the teaching of gymnastics

There are a thousand teachers in Berlin who are capable of giving gymnastic training They, for the most part, do so in connection with their other classes, but they must first go through a regular normal school of gymnastics In 1885 there was appropriated for the Royal Normal School for Gymnastic Teachers, established at Berlin in 1851, something over $21,000, and here teachers from all over the German Empire come to learn, so that they may go back home and teach their pupils Details of officers from the army become pupils so that they may teach the soldiers, and the effect of this training is seen in the superiority of the German soldiers They can get over a picket fence fifteen feet high without ladders and without catching any of their clothing or accoutrements The Germans introduced gymnastic exercise into America, and we could not do better than to embrace their system, adapting it, of course, to our institutions, thus enabling our youth to bear the brute strain of study

DR O W WIGHT, Health Officer of Detroit, read a paper entitled

EXPERIMENTS IN DISINFECTING SEWERS

Detroit has no regular sewer system The city is traversed by more than a score of great conduits, from four to eight feet in diameter, from two to seven miles in length Most of them empty into the river submerged, consequently the dead water sets back in them from 1,000 to 5,000 feet At their lower ends they are ordinarily choked with sediment, which is sometimes washed partly out in great storms The submerged mouths are pretty effectually trapped, making these huge conduits receptacles for vast volumes of sewer-gas A rapid increase of water in the big sewers, during a summer shower, has sometimes caused such internal pressure of the confined air as to throw off covers from manholes in the streets The effect on traps in the drains of houses can be easily imagined The lateral sewers are constructed of common porous brick, thrown together by cheap workmen, and are all twenty inches in diameter, whether designed to drain five acres or fifty acres Sewer empties into sewer, frequently at right angles, sometimes at the top, sometimes at the bottom Now and then a large sewer is connected with a smaller one Here and there depressions allow the sewage to become ponded and undergo putrefactive decomposition In places, the constructors have evidently expected water to run up hill, in obedience to the wishes of a favored contractor Recently, more than twenty large saw logs were extracted from a single sewer, fifty or sixty rods back from the river More than ten thousand vaults are connected with the sewers, for the most part by means of eight inch clay or cement pipe, laid without tight joints or traps No wonder Detroit has annually more than a thousand cases of diphtheria Doctors there used to tell the people that they had the best sewer system in the world and that their city was the healthiest in the United States

Notwithstanding the fact that two medical men descended into one of the great sewers, remained there, to use their own language, "twenty four consecutive minutes," and not only came out alive, but announced to an expectant public that the air therein was ' chemically pure," I determined to disinfect the 200 miles of sewers and see what would come of it The work of disinfection was begun with copperas There are in the streets and alleys of Detroit about 5,000 receiving basins communicating with the sewers Into each of these were thrown a dozen pounds of copperas To each school house, police station, fire engine house, and to every other public building, a barrel of copperas was sent, at the city's expense We used 75,000 pounds of copperas, purchased by the carload, at $13 a ton At the same time I made an arrangement whereby citizens could purchase, of a wholesale dealer, copperas for one cent a pound As nearly as I could calculate, the citizens purchased and used about 200,000 pounds during the season The direct and indirect effect on the sewers, from the use of nearly 140 tons of copperas, was to disinfect the sewage for several successive weeks The citizens found so much comfort from the disinfection of their foul smelling drains that, with many of them, the use of copperas has become habitual It is very true that copperas, or any other disinfectant, is not a perfect substitute for good plumbing and proper drainage, but it does something toward remedying a prevalent sanitary evil

To destroy the poison in the confined foul air of sewers, also to kill the fungoid growths on their inner walls, a gaseous disinfectant is necessary I therefore determined to fumigate the sewers with burning sulphur Three tons of roll brimstone were purchased at a total expense of $150 Fifty galvanized iron pails, called steamboat pails, were purchased, at seventy five cents each A sufficient quantity of light chain, and five dozen spikes, with hooks in the place of heads, were also purchased Holes three quarters of an inch in diameter were punched in the iron pails about two thirds of the way up from the bottom, two inches apart all the way around. Procuring from the Board of Public Works the services of two men experienced as to the location and construction of the sewers, loading up a wagon with a barrel of sulphur, a nest of pails, perforated as aforesaid, a quantity of chain, a pair of nippers, a hammer, pick, shovel, crowbar, shavings, bundles of short wood faggots, and a barrel of charcoal, I started out amid the jeers of a disbelieving crowd of city officials.

With shovel, pick and crowbar, the cover of a manhole was lifted when we reached the place of our destination. A spike, with a hook on the end of it, was driven into the wall of the brick well, a foot or two below the top, the chain was fastened to the bail of an iron pail and the same let down into the sewer, so as to swing just clear of the sewage running in the bottom. The chain was then hooked on the spike already driven. The nippers served to cut off the chain above the hook. The pail was then drawn up, leaving the adjusted chain attached to its fastening. Into the pail were put, first, a handful of lighted shavings, then on the burning shavings some faggots of wood, and lastly, on the igniting wood a small scoopful of charcoal. Over the pail was placed a sheet iron cover, in the centre of which was inserted a single length of conical stovepipe, eight inches in diameter at the bottom and four at the top. The air rushed through the holes punched in the pail with a good draught, hastening combustion and thereby saving time. As soon as the charcoal was thoroughly aglow, the cover was removed, a dozen pounds of brimstone were thrown on the hot fire, and the pail, by means of its already adjusted and fastened chain, was quickly lowered into the sewer. It only remained to replace the cover of the manhole. We drove on to the next manhole, four or five hundred feet away. Removal of the cover revealed not only smoke, but also a strong odor of brimstone. Sulphurous acid gas traveled in the sewer as fast as we did on the road.

The work went steadily on, day after day, till a pail of burning brimstone had been suspended down each one of the 500 manholes in the city. The pails were taken up the next day following suspension, and not unfrequently, remnants of sulphur were found burning after twenty four hours. Not a single pail missed fire. If ordinary means of igniting the brimstone had been used, there would have been many failures and much loss of time. The odor of burning brimstone demonstrated to many a citizen that his drains and waste pipes were not securely trapped against sewer gas. When the work was completed, the people were so convinced of its efficacy that the Board of Education resolved to have all the school buildings fumigated, in each of which, according to the size, were burned from thirty to eighty pounds of brimstone. There followed the copious use of copperas and sulphur a great abatement of diphtheria and an almost total cessation of scarlet fever.

Of course, a single experiment does not warrant us in predicating a relation of cause and effect. The whole expense for a single disinfection of the sewers with copperas and burning brimstone was less than $1,300. With the money left out of the appropriation, we have this year repeated the experiment. Again we have treated the sewers of the city to 60,000 pounds of copperas and three tons of burning sulphur. The Board of Education has adopted the plan of fumigating the school buildings twice a year. The second experiment was followed, for a time, by an almost complete cessation of diphtheria. Again I say that disinfection, however thorough, is only a temporary relief from a dangerous evil, and cannot be relied on as a substitute for an unsound sewer system and radically defective house drainage. The expense is not great, and it may be used as a more or less valuable instrumentality in a season of epidemic peril.

Dr. Rohe hoped that Dr. Wight would disinfect and fumigate the sewers of Detroit in winter and let the Association hear the result of his experiments.

Mr. C. C. Dewstoe, of Cleveland, Ohio, said that plumbing and sewerage ought to come under the direction of Boards of Health.

THURSDAY, DECEMBER 10—THIRD DAY.

MORNING SESSION.

HON. ERASTUS BROOKS, FIRST VICE-PRESIDENT, PRESIDING.

The following were

ELECTED MEMBERS:

Drs. Andrew W. Imrie, Detroit, John W. Jones, Tarborough, N. C., Frank L. Simm, Memphis, J. Howard Taylor, Philadelphia, Charles Farquhar, Olney, Md., Carl H. Horsch, Dwight A. Richardson, Osceola, Ark., Thos. Taylor, Jas. T. Young, Z. T. Somers, P. Morgan, Jr., Washington, D. C., Mr. Ed. J. Hannan, Washington, D. C.

The following resolution, offered by Mr. Henry Lomb at Wednesday's forenoon session, was adopted by the Executive Committee:

COMMISSION ON WORKSHOPS.

Resolved, That the American Public Health Association respectfully recommend to the Commissioner of Statistics and Labor the appointment of one or more commissions of experts whose duty it shall be to visit the principal factories and workshops in this country to examine them carefully with reference to the provisions made in them to ensure the safety and health of the employes, and to report on the same, with recommendations.

Dr. John H. Rauch, Secretary of the Illinois State Board of Health, then read a paper on

MARITIME QUARANTINE FROM THE ST. LAWRENCE TO THE RIO GRANDE.

After taking the necessary action to secure the best attainable sanitary condition of the territory under its immediate jurisdiction—as one of the most important preparations against an invasion and spread of Asiatic cholera—the Illinois State Board of Health, at its meeting in July, 1885, authorized me, as its Secretary and Executive Officer, to make an inspection of the various quarantine establishments along the Atlantic and Gulf coasts. The geographical position of Illinois, its commercial relations, and the extent and character of its means of communication, make the administration of maritime quarantine with reference to the exclusion of exotic contagious and infectious diseases a matter of sufficient importance to induce the Board to secure all accessible information on this subject, the better to enable it to discharge its duty with reference to the protection of the lives and health of the citizens of the State

The absence of an adequate National Health authority and legislation, and the fact that in such absence the maritime quarantines are controlled and administered by State authorities, resulting in diverse and sometimes conflicting regulations and requirements, and of necessity, in a tendency to limit precautions to their own individual interests, commercial as well as sanitary, throw upon interior States the responsibility of fully informing themselves of the strength or weakness of these outposts in order to know where to anticipate danger and how to make their own preparations to meet it It is this information I have endeavored to secure in my inspection, and which is here presented It is hardly necessary before this assemblage to say that we are by no means yet free from danger of an invasion of cholera simply because there is now a cessation of alarming reports from Europe It must not be forgotten that the duration of a cholera invasion of Europe is not limited to two or three years From the date of its first appearance in 1829–30, in Russia, to its final extinguishment in Italy, Austria and Germany, a period of seven years elapsed, during which, at one time or another, every one of the Continental countries was invaded, some of them more than once Similarly in 1847 it again entered Russia at ten points, and before its final disappearance in the Levant in the winter of 1855–56 it traversed every part of the the Continent and invaded Great Britain In its last pandemic spread it appeared first at Malta in 1865, continued to ravage various parts of Europe until 1869, when there was a complete remission, only to break out again in 1871, and finally disappear in 1873 With immigrants from every portion of Europe continuously arriving upon our shores, we cannot be freed from this menace until every trace of the contagion in that country has vanished

When this inspection was ordered it was believed that it might be productive of good in stimulating improvements, and in presenting more clearly the interest of distant communities in the administration of what is apt to be considered a purely local measure This belief has been fully realized, and the results obtained have been well worth the labor and expense involved

From the date of the earliest establishment of quarantine in this country down to the present time, its efficiency and the public interest in it have been fitful and spasmodic, depending on some pressing emergency Small pox from the slave trade, yellow fever from West Indian commerce, and typhus and small pox by immigrants, led to the first quarantines, dating back to the close of the seventeenth century From 1791 for several years, yellow fever furnished the impetus, then in 1832 the cholera was added, and from that time up to the fever summer of 1878 there was no general interest in the subject, although quarantine conventions were held and the question was discussed by physicians and sanitarians, the most notable effort in this line being that inaugurated by Dr Wilson Jewell, of Philadelphia, who, in 1856, sought the establishment of "a uniform code of regulations, operating alike in all seaports and offering the least hindrance to an active commerce and with a humane regard for the health of the passengers and crews and the comfort of the sick on board of all vessels detained at quarantine stations" But notwithstanding the organization, in 1857, of a "Quarantine and Sanitary Convention" for this purpose, and which held annual sessions in 1858, 1859 and 1860, the control of quarantine has always remained under the jurisdiction of State and local authorities except during the brief period in which the National Board of Health exercised limited quarantine powers

It is not proposed to discuss the necessity for National action on this subject The National Conference of State Boards of Health and the American Public Health Association are both on record as to the importance and necessity of such action But mention may here be made to the existing confusion, not alone in this country, but abroad, as to the present status of National quarantine legislation Such sanitary measures as are now enforced by the Government are based upon authority derived from the Act of April 29th, 1878, to prevent the introduction of infectious or contagious diseases into the United States But the late Secretary of State, Mr Frelinghuysen, and the late Secretary of the Treasury, Mr Folger, both decided that the Act in question, having been repealed by the Act of June 2d, 1879, could not be revived by the expiration of this latter Act The point would have less practical importance if the authority which assumes to act under it can and will furnish the country the necessary protection in the present emergency As practical sanitary executives we are less concerned just now as to who exercises the authority and by what right, than in the questions Is the authority wisely exercised? Is it sufficient? May we rely upon it implicitly? If not, to what extent? And how can we remedy its deficiencies? It is by no means meant by this that it would not be better that there should be a properly organized National Health Department, acting under clear and undisputed legal authority, and supplied with funds adequate to its legitimate necessities That the present status of National sanitary legislation and of the National sanitary executive is defective and unsatisfactory, is patent to every one

The history of the recent attempts to control the disinfection of rags, the complication at the port of New York concerning consular bills of health, the strictures upon the inspection service maintained along the coast, the friction between the Canadian health authorities and our own in the matter of inspections on the Canadian frontier, the complaints of various Boards of Health that they are directed to look to the associated press for information and warning concerning threatened danger from abroad to their ports and territory, and many other similar matters, point to the necessity of a well considered and radical revision of existing sanitary legislation No sanitarian will, I presume, question the danger of communicating pestilential diseases by infected linen and rags At the Fifth International Congress of Hygiene, at the Hague, in 1884, Ruijsh cited a mass of proof which is conclusive as to the numerous outbreaks of plague, small pox, petechial typhus and Asiatic cholera caused by handling, sorting and carrying rags In the absence of any national authority cargoes of such rags refused entry at certain ports have been received at others

As to consular bills of health, want of direct and official information concerning the sanitary condition of foreign ports and other counts in the above summary, they are essential to the prevention of the introduction of foreign contagion

DR JOS HOLT, of New Orleans, read a paper on

THE SANITARY PROTECTION OF NEW ORLEANS

He spoke of the means which had not yet been taken by New Orleans for the sanitation of the city, but toward which he said the people were being educated by the Health Board and by the intelligent press Already a plan was being prepared for the systematic and thorough sewerage of the city Maritime sanitation had taken the place of quarantine along the coast The theory of bacillic origination for the essential cause of diphtheria, consumption, small pox and yellow fever has passed from the realm of uncertainty into a crystallized fact Even in our religion, incantations and long drawn prayers are no longer looked upon as disinfectants We have tried these and have invariably been swamped We are no longer fighting the devil and the devil's works, but a microscopic germ—a little leaven which, if not speedily eradicated, leaveneth the whole lump Yellow fever and cholera are due to living organisms, and it is to the destruction of these that our efforts are directed The surest prevention of a conflagration is to quench the first spark The surest prevention of an epidemic is to act on the first suspicion of the presence of epidemic disease We disinfect every ship coming from cholera or yellow fever regions, regardless of bills of health or the angry cry of trade mongers Should you ask why does not the commerce of New Orleans sweep the circuit of the world? why it has not grown as other large American cities? I would answer in one compound word—yellow fever

Dr Holt spoke at length upon the success of inoculation for yellow fever It has been proved that the germ can be inoculated in the body of the unacclimated person, and that a mild form of yellow fever will be produced thereby The persons who have been thus inoculated have been enabled to pass through most virulent epidemics unscathed In concluding his paper, Dr Holt said that the principal object of his visit to Washington was to present the following resolution to the Association to bring to the attention of Congress

COMMISSION ON YELLOW FEVER

WHEREAS, The question of immunity from yellow fever is so intimately associated with the social, industrial and commercial growth of Tennessee, the Southern Atlantic and the Gulf States of the Union, as to determine the destiny of Memphis, Charleston, Savannah, Pensacola, Mobile, New Orleans, and Galveston, and

WHEREAS, A large and accumulating mass of testimony that the power of protecting the unacclimated against yellow fever, has been discovered, and proven in the inoculation of the essential germ or cause of the disease by methods distinctly formulated and available, these aforesaid declarations and numerous instances cited in corroboration emanating from medical scientists in the biological departments in the highest institutions of learning in Mexico and Brazil, authorized by and bearing the endorsements of the respective Governments,

Resolved, That we, the representatives of the Boards of Health in the several States of this Union, and we, the officers and members of the American Public Health Association, regarding the question as preeminently a vital issue, as one in its assumptions true or false, and if true, of incalculable worth, surpassing the computation of many millions of dollars and to the saving of tens of thousands of lives of its own people, that we hereby petition and urge upon both branches of Congress now assembled, to appoint a commission for the purpose of making a complete investigation of and reporting after a thorough examination of the methods pursued, their effectiveness in protecting the unacclimated against yellow fever infection, together with all associated observations and experiments that may be ascertained

Resolved, That in the aforesaid petition the commission shall be stated to consist of three persons, one of whom shall be of known ability and special attainment in biological research, particularly in the department of microscopic investigation and culture of the essential germ or organisms causative of the infectious or contagious diseases The other two members of the commission shall be medical men of recognized ability based upon long and ample experience, competent to give expert consideration to all phases of the symptoms and course of yellow fever in any form wherein the phenomena of the disease may present itself, whether induced in the course of pestilential invasion or in purposely devised inoculation

Resolved, That this commission aforesaid shall proceed at the earliest practicable moment to Rio de Janeiro as the first field of its labors Having completed there its work, it shall proceed to Mexico, and if necessary in the accumulation of testimony, to Panama, Colon, and Havana

Resolved, That the sum of $30,000, or so much thereof as may be actually required to pay the necessary and unavoidable traveling and other expenses and the salaries of the members of the Commission

Resolved, That the sum of $5,000 shall be paid as a recompense to each member of the aforesaid Commission

DR S T ARMSTRONG, U S Marine Hospital Service, read a paper on

MARITIME SANITATION,

in which the subject was considered from the standpoint of the sailor, the passenger, the cargo, the vessel, and the port. Attention was directed to the necessity of legislation for preliminary examination of seamen, before shipment, of a required minimum cubic space in the sleeping quarters of the crew, of inspection of passenger and emigrant vessels regarding health of passengers, crew, etc., by medical officers of the Treasury Department instead of Collectors of Customs.

Disinfection of cargoes and vessels from infected ports, both by shipmasters and by inspecting officers at the port of arrival. The sanitary condition of the port was only alluded to, as the author considered this the special province of the Association, and if ports were in a good sanitary condition but little danger may be anticipated from imported disease.

DISINFECTION OF RAGS.

The Philadelphia Board of Health asked the Association to pass resolutions that rags should not be admitted to this country until disinfected.

At 1 o'clock P.M. the Association adjourned to call upon the President at the White House, according to special arrangement.

At a meeting of the Executive Committee immediately after the adjournment of the morning session at 1.30 o'clock, it was decided that the next annual meeting of the Association should be held at Toronto, Ont.

(*To be concluded.*)

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, December 9, 1885.

VICE-PRESIDENT W. H. TAYLOR, M.D., IN THE CHAIR.

DR. SWAN M. BURNETT presented a boy suffering from

TUBERCULAR DISEASE OF THE IRIS,

and gave a history of the case.

Harry Haskins, white, aged 13. Seen for the first time at the Central Dispensary, on May 22, 1885. At that time there was iritis of the R. E., accompanied by the usual symptoms of pain, injection, etc., and the use of atropine showed that adhesion had already taken place to the anterior capsule of the lens. There was also visible at the lower inner periphery of the anterior chamber a nodular tumor 2 mm. in length and 1 mm. in thickness and height. The tumor was of a light yellowish red. There was also a slight opacity of the cornea over this, and a leash of vessels running from the conjunctiva and passing over the surface of the cornea beyond the inner edge of the growth. There was simple perception of light in this eye. The left eye was at that time normal. There were hard, nodular, clearly circumscribed swellings at the upper outer angles of both orbits—apparently enlargements of the lachrymal glands.

In July, a small tumor exactly similar to the one in the R. E. made its appearance at the lower periphery of the L. E., and in the course of a week there was an eritis in this eye also. The active process in the R. E. had subsided, but the tumor remained unchanged or perhaps increased somewhat. The tumor in the L. gradually increased and in the course of a month or six weeks attained nearly the size it now is. The iritis subsided in the course of two or three weeks, but there was a slight renewal of inflammation in the R. E. a month ago, which subsided in a week. On September 29, when he presented himself, there was noted a small yellowish nodule at the outer lower papillary edge of the iris, and a month later a similar nodule at the upper edge of the papillary margin.

Soon after he was first seen, there was noted an enlargement of a post-auricular gland, and gradually since then other post auricular and sub maxillary glands on both sides have become implicated.

On inquiry, I learned that there is tuberculosis in the family. Under the idea of syphilis being at the bottom of the pathological state—though a careful examination failed to reveal any evidence of either the inherited or acquired form—he was placed on mercury and iodide of potash in small doses. The use of these remedies for several months, however, has failed to make any impression on the disease. I have seen one case of tubercular tumor of the choroid exhibited as a living specimen to this society three years ago, and there are certain points of resemblance in history and appearance in the two which make me almost certain that this case is one of tubercular deposit. The question is, if the eye had been removed when first seen, would self infection have been forestalled. I fear that I shall have the opportunity of presenting, at some time in the near future, the morbid specimen in this case.

DR. C. E. HAGNER said he had examined the boy's lungs and found the right one healthy. There was a broncho vesicular murmur at the top of the left lung together with some slight dulness of the same organ. He did not know whether enucleation would prevent further infection or not. He thought it would be well to put the patient under constitutional treatment for syphilis, as there was a possibility that the boy might be suffering from that disease. At any rate, mercury and potash in tonic doses could not do him any harm, even if tuberculosis and not syphilis was the disease.

DR. TAYLOR had also examined the boy's lungs, and found, he thought, bronchial respiration together with a deposit in the left lung.

DR. SMITH thought that every effort should be made to exclude syphilis, if possible.

DR. THOMPSON thought there was scarcely a possibility of syphilis in this case. It could scarcely be acquired, for the boy was too young, and besides, there was no evidence of such a thing. But even if this child should have inherited syphilis, these symptoms, occurring at this late date, cannot be repaired by mercury and potash given as specifics. The outcome of inherited syphilis in a boy of this age would be scrofula or tuberculosis. Dr. Thompson believed this child had tubercular disease, and that the best thing to do was to let the eye alone. The same questions that Dr. Burnett proposes arise when the patient is suffering from tubercular disease of a testicle, a joint, or an important bone It is not certain that the removal of any of these will prevent further infection Even with carcinoma, which the best pathologists consider local in its origin, the removal of the tumor does not always prevent constitutional infection or even a local recurrence He would not object to giving this patient small doses of mercury and potash, for they might have a tonic effect

Dr Burnett said that although he had not before stated it, as a matter of fact, the boy was put under constitutional treatment as soon as he came to the clinic He took mercury and potash thrice daily for a long time After the doctor had exhausted all the resources of pathology and therapeutics, he was driven to believe that the boy was suffering from tubercular disease

Dr D S Lamb then presented the following specimens

LIVER OF STILL-BORN INFANT SHOWING TWO TUMORS,

a small one involving left margin, the other occupying a large part of right lobe These tumors were yellowish white and firm, presenting a marked contrast to the darker and softer normal structure Spleen was enlarged Blood effused under scalp and also over right cerebral hemisphere, this hemorrhage was probably the cause of death Lungs airless, remaining viscera normal Tumors of the liver in the newborn are of the greatest rarity The tumors in this case suggested sarcoma, but the microscopical examination has not yet been completed Had this child lived for several months, the period of their origin would have been doubtful—possibly would have been considered as post natal

SMALL INTESTINE AND MESENTERY OF AN INFANT BORN AT EIGHT MONTHS, WHICH LIVED TWO DAYS

There was double hare-lip and cleft palate, and it was said that the infant was unable to take any nourishment The intestines were normal, but mesenteric glands markedly enlarged The possible relation of this condition to tabes mesenterica is an interesting question It does not seem possible in this case that the glands could have been infected from the intestine The subject of disease in the fœtus and new-born infants is of such obvious value that it need not be enlarged upon It is very desirable that the investigations now being made in this direction should be continued

A PORTION OF LUNG FROM A MONKEY SHOWING TUBERCULAR CAVITIES

This was a young female, and the mate died of same disease about a week previously It seems that not only do many monkeys in captivity die of this disease, but they die from a relatively small amount of disease

DOUBLE PANOPHTHALMITIS FROM A KITTEN

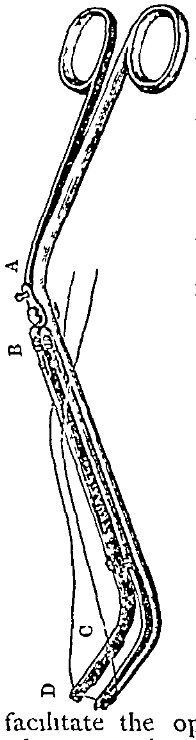
about a month old at death The disease of a week or ten days duration Killed with chloroform and eyes enucleated and placed in alcohol There is a large exudation in the posterior chamber and opacity and staphyloma of the cornea

NEW INSTRUMENTS

A POST-NASAL SNARE APPLICATOR

BY E FLETCHER INGALS, M D

The post nasal snare applicator, to which reference was made in The Journal of December 5, was designed to facilitate the application of a wire loop over tumors in the post-nasal space, and to retain the wire in position until it could be tightened In using it a catheter is passed through the nose, the end being drawn out through the mouth Through this are passed both ends of a wire about three feet long, which are brought out at the nostril The applicator is then attached to the loop, and the catheter and wires are drawn through the nose, the wire loop being drawn back into the mouth As the loop passes under the edge of the soft palate the blades of the applicator are opened, thus spreading out the loop over the tumor The wire loop is then carried by the applicator directly to the base of the growth in the vault of the pharynx, where it is held while an assistant passes the ends of the wire, projecting from the nose, through the tube of a snare, which glides along the wires to the back part of the nares The wires are then fixed to the snare, and by it the loop is drawn tight about the tumor The sliding blades of the applicator are then loosened and the instrument disengaged by a slight movement In the cut, B and D show the sliding blades which retain the wire C in the notches at D A, is a cam which tightens the sliding blades over the notch at D, and which, when turned sideways, allows the blades to be drawn back by the thumb pieces at B, thus releasing the wire at the notches D



The instrument works perfectly, and fully accomplishes the object for which it was designed It is especially useful when the tumor is large, a condition which sometimes makes it extremely difficult to apply the wire loop

For small tumors it is not so essential, but it will be found to greatly facilitate the operation, and to relieve the patient of most of the discomfort incident to the introduction of the fingers behind the palate

64 State St , Chicago, Dec 12, 1885

DOMESTIC CORRESPONDENCE

MALARIAL FEVER AND YELLOW FEVER

Dear Sir —In The Journal of December 5 is an article by Dr de Mello, of Rio de Janeiro, which is designed to show the identity of yellow fever and acute malaria, and which coincides with the ideas I have always entertained in reference to that subject

I was practicing medicine, from 1839 to 1846, inclusive, at the Grand Rapids of the Maumee, in Ohio During the first three or four years of my residence there the Wabash and Erie Canal was being made The termini were the Maumee bay in Ohio, and Evansville in the southwestern corner of Indiana, making it one of the longest canals in the world I am not certain whether a boat ever went through the whole length of this canal The Indiana part of this canal was abandoned a few years ago, and that portion from Terre Haute to Evansville was never used While they were digging the canal in Ohio, nearly all of which I saw, the Maumee Valley got a reputation (and founded on fact) for being one of the most malarious districts in any Northern State, almost vieing with New Orleans A ghastly joke I recollect about Toledo A man inquired the way to Monroe, was told to take the most travelled road, and was brought up at the graveyard Indeed, one summer they were obliged to suspend the work on account of sickness—mostly cases of malarial fever—and many of the pernicious kind Probably it was not so bad as the Panama railway, where, it is said, every tie represents a death, but it was bad enough, as I personally knew after I had been in the country two months In my own case, a few of the results were a spleen about as big as my head, anasarca, and a skin the color of a ripe pumpkin

These sequlæ *might* not have been so bad, had we then known how to treat such cases as well as we now do That is to say, we did not know enough to give quinine in sufficient quantity At that time, the usual treatment was mercurials (principally calomel), tartar emetic, drastic cathartics, and a minimum quantity of quinine—and this must not be taken till the fever had subsided Not often was more than gr ij given in one dose—generally gr x in six doses It is about forty five years since I repudiated the absurd notion of waiting for the fever to intermit before quinine could be safely administered I got a *pointer*, as the boys say, in the practice of a *soi-disant* Dr Sappington (a suggestive name), of Missouri, whose pills nearly always cured malarial fever, and they were to be taken during the fever After this doctor had made a fortune from the sale of his pills, he disclosed the formula, which was nothing but quinine with ext liquorice

But what has all I have said to do with yellow fever? This much, I may say, that I have always considered yellow fever as the gravest form of malarial fever, simple ague being the mildest During my residence in Grand Rapids from 1838 to 1846, I saw many cases every summer of what we called bilious-remittent fever, with intense jaundice, and other symptoms approaching to yellow fever, and in the summer (August) of 1840 I had what might be called a typical case of yellow fever The subject was a laborer on the canal, of middle age, German, who had never been where yellow fever prevailed He had all the characteristic pathognomonic symptoms of yellow fever, including black vomit He died after an illness of three or four days Although I did not *call* this case yellow fever, I never doubted that it was, nor that the cause was there in that canal He was, doubtless, saturated with the poison, whatever that may be, whether it be a microbe or not It followed the "excavations," as Dr Mello said it did in Rio de Janeiro It might be said that I was mistaken in the diagnosis, as I had not then seen a case—but I did afterwards, in New Orleans in 1869, and I know that that man had all the characteristic symptoms of yellow fever, and it would not alter the case, any more than to call a case of small-pox eczema or some other name It would probably take the same cause, essentially, to produce a given effect in the Maumee Valley that it does in New Orleans—though it is true that causes, apparently utterly unlike, will produce effects perfectly identical For instance, I defy anybody to tell the difference between the pustules of varioloid and those produced by tartar emetic And, by the way, I have always believed that pustules produced by tartar emetic *may* be as good a preventive of small pox as the vaccine virus, but, for obvious reasons, I cannot prove it

Whenever there is an epidemic of yellow fever in New Orleans, especially at the commencement, there is generally some dispute among the doctors, as to whether the fevers are yellow, or cases of grave bilious fever, a nice distinction, without a difference except in degree, I think I believe, however, they call these milder cases *malarial*, to contra distinguish them If the microscopic yellow fever germ should be discovered, if it has not yet been, I believe the identity will be shown—till then, I shall think that Dr Mello's theory is the most important contribution on this subject in recent times

B S WOODWORTH, M D

Fort Wayne, Indiana, Dec 12, 1885

PASSAGE OF A LARGE PIECE OF GLASS THROUGH THE FOOT, AFTER FIVE MONTHS

To the Editor of the Journal

Dear Sir —The following case may prove somewhat interesting to the readers of The Journal

William I D , aged 17 years, while swimming on July 2, 1885, cut a deep gash in his right foot on some sharp object in the water The wound was about the centre of the plantar surface of the foot, from side to side, and about an inch and a half from the base of the toes There was considerable hæmorrhage, which was arrested by a companion The wound was completely healed in two weeks, and no physician had seen the case About this time a small swelling appeared on the top of the foot, causing great sensitiveness, on account of which the top of the shoe had to be cut away This was the only inconvenience that the patient suffered, except that when he had been on his foot all day it became tired and somewhat painful He could walk and run without difficulty or limping, and for five months the right foot was used as much as the other

On November 12, the sensitive spot on the top of the foot was accidentally struck, causing great pain and rupture of the skin, giving exit to some blood and pus I was called in on the evening of November 13 Near the surface of the small open wound I found the point of a hard foreign substance, which on probing was found to be of considerable size, and deeply imbedded in the foot Attempts at removal caused such pain that it was necessary to administer chloroform The opening, which corresponded with the space between the second and third metatarsal bones, was enlarged, and with a pair of dressing forceps considerable force was required to dislodge the foreign body, which proved to be a triangular piece of glass, measuring three quarters of an inch on every side, and one-eighth of an inch in thickness It is evident that this piece of glass had been in the foot for more than five months and had passed completely through the member The boy is now recovering rapidly

There are two things that seem quite remarkable to me in this case 1 That a foreign body of this character could pass entirely through the foot between the metatarsal bones without causing more interference to locomotion 2 That such a substance could remain in an organ so much used as the foot, without exciting more inflammation and suppuration

J E Allaben, M D

Rockford, Ill , Nov 17, 1885

BOOK REVIEWS

Post-Mortem Examinations, with Especial Reference to Medico-Legal Practice By Professor Rudolph Virchow Translated by T P Smith, M D , M R C S , England From the fourth German Edition 8vo, pp 138 Philadelphia P Blakiston, Son & Co 1885 Chicago W T Keener

This small book, as is to be expected from the name of its author, is worthy of careful study The first portion describes somewhat the history of the methods of making post mortem examinations as it has been adopted by Virchow When he became Prætor at the Charite he found that the autopsies were made without method and by many persons who were incompetent He defined a method, which since then he has improved, and instituted a thorough system in the making of all examinations Too much cannot be said in this country upon this subject of pursuing a system in the making of autopsies Few physicians have had instruction in the subject, and when they attempt an autopsy they make bungling work of it If they knew how, many more private autopsies would be made, for it need not be an unpleasant task, and it need not take long In hospitals the autopsies too often are made by students or internes without oversight or guidance As a result, very much valuable material is lost and wasted All physicians and students should study some such book as this, unless they have had the advantage of practical instruction

The remainder of the book is taken up with comments upon and fuller explanations of the rules or "regulations for the guidance of medical jurists in conducting post mortems," which are given in full at the end of the little volume Several cases are fully described as they were made by Virchow These are given both to illustrate the methods of operating and of describing what is seen at the autopsy The description of these cases adds very much to the value of the book

A Treatise on Practical Chemistry and Qualitative Inorganic Analysis By Frank Clowes, D Sc , Lond From the fourth English Edition 8vo, pp 376 Illustrated Philadelphia Lea Brothers & Co 1885 Chicago Jansen, McClurg & Co

The present edition of this well known and extensively used laboratory guide differs from the former issues in slight additions and rearrangements throughout the entire volume The most important of these is the insertion of a section on the analysis of some of the more common organic substances In the introductory chapter there has been a rearrangement, with amplification and the addition of new illustrations for the purpose of rendering the author's instruction more intelligible to the beginner, thus supplementing the work of the teacher or laboratory assistant

A Text-Book of Medical Chemistry For Medical and Pharmaceutical Students and Practitioners By Elias H Bartley, M D , Chief Chemist to the New York State Dairy Commission, Inspector New York State Board of Health, etc Forty Illustrations 8vo, pp viii, 376 Philadelphia P Blakiston, Son & Co 1885 Chicago W T Keener

It is with pleasure that we notice what is probably the best Chemistry for medical students—for its size—now in the market Prof Bartley has written the book because he had something to say, and he has said it well We could wish, however, that under "Ptomaines," some of the methods for searching for these substances had been given in detail Excellent features are a glossary of unusual chemical terms, an appendix giving the analyses of the various fluids of the body, a thoroughly good section on incompatibilities, and a table of solubilities

ASSOCIATION ITEMS

OFFICERS OF THE ASSOCIATION

President—Wm Brodie, M D , Detroit, Michigan

Vice-Presidents—Samuel Logan, M D , New Orleans, La , A Y P Garnett, M D , Washington, D C , Charles Alexander, M D , Eau Claire, Wis , and W F Peck, M D , Davenport, Iowa

Permanent Secretary—Wm B Atkinson, M D , 1400 Pine Street, Philadelphia, Pa

Treasurer—Richard J Dunglison, M D , lock box 1274, Philadelphia, Pa

Librarian—C H A Kleinschmidt, M D , Washington, D C

OFFICERS OF SECTIONS

Section of Practice of Medicine, Materia Medica and Physiology—Chairman, J T Whittaker, M D Cincinnati, Ohio, Secretary, B L Coleman, M D , Lexington, Ky

Section of Obstetrics and Diseases of Women—Chairman, S C Gordon, M D , Portland, Maine, Secretary, Chas T Paine, M D , Comanche, Texas

Section of Surgery and Anatomy—Chairman, Nicholas Senn, M D , Milwaukee, Wis , Secretary, H H Mudd, M D , St Louis, Mo

Section of State Medicine and Hygiene—Chairman, John H Rauch, M D , Springfield, Ill , Secretary, F E Daniel, M D , Austin, Texas

Section of Ophthalmology, Otology and Laryngology—Chairman, Eugene Smith, M D , Detroit, Mich , Secretary, J F Fulton, M D , St Paul, Minn

Section of Diseases of Children—Chairman, W D Haggard, M D , Nashville, Tenn , Secretary, W B Lawrence, M D , Batesville, Ark

Section of Oral and Dental Surgery—Chairman, John S Marshall, M D , Chicago, Ill , Secretary, E A Baldwin, M D , Chicago, Ill

Time and place of Annual Meeting—On the first Tuesday in May, 1886, in St Louis, Mo

Chairman of the Committee of Arrangements—LeGrand Atwood, M D , St Louis, Mo

Assistant Secretary—Wm C Glasgow, M D , St Louis, Mo

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

MEMBERSHIP —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly JOURNAL of the Association for one year

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL

WHEN DUES ARE PAYABLE —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the JOURNAL for one year from the following July Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

DEATHS —When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

PAYMENT OF DUES FOR PREVIOUS YEARS —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

TRANSACTIONS OF THE ASSOCIATION —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

RICHARD J DUNGLISON, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

DR W A EAST, of Hallettsville, Texas, died Dec 10, 1885, of pleuro pneumonia Dr East was born in Nashville, Tenn , Dec 9, 1824 He read medicine with Dr Thomas R Jennings, of that city, and attended lectures in Philadelphia during 1845-46 He was for several years Professor of Theory and Practice of Medicine in the Galveston Medical College, and was a member of the American Medical Association, and the Texas State Medical Association He was known throughout his State as one of its best and most conservative practitioners

---

DR ALPERT H SMITH, one of the best known physicians of Philadelphia, and one most beloved by professional friends and his patients, died at his home in that city, on December 14, after a long period of painful illness He was in his fifty-first year

---

NEW YORK STATE MEDICAL ASSOCIATION, FIFTH DISTRICT BRANCH —The third special meeting of the Fifth District Branch will be held in Yonkers, on Tuesday March 23, 1886 E H SQUIBB, M D ,
Secretary

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM DECEMBER 18 1885 TO DECEMBER 24 1885

Fryer, B E , Major and Surgeon, sick leave of absence extended six months on surgeon's certificate of disability , (S O 292, A G O , Dec 21, 1885)

Vickery, R S , Major and Surgeon, relieved from duty in Dept of the Columbia, to repair to Washington, D C , and report in person to Surgeon General for duty in connection with Army and Navy Hospital, Hot Springs, Ark (S O 293, A G O , Dec 22, 1885)

Reed, W , Capt and Asst Surgeon, leave extended one month (S O 293, A G O , Dec 22, 1885)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, JANUARY 9, 1886 No 2

ORIGINAL ARTICLES

ELEMENTS OF PROGNOSIS IN BRIGHT'S DISEASE[1]

BY AUSTIN FLINT, M D

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE NEW YORK

In the popular mind, the name Bright's disease, at the present time, has a prophetic import not unlike that of a verdict of conviction after a trial for life It is regarded as a hopelessly fatal malady, more hopeless indeed than the condition of one condemned to execution, inasmuch as in the latter case there may be the prospect of a new trial or a hope for pardon This prevailing impression like other popular impressions relating to disease, reflects the views of the medical profession By the latter, Bright's disease, in its chronic form, is generally regarded as a disease from which recovery is not to be expected, a fatal termination taking place invariably sooner or later This view of the prognosis is not far from the truth It may be said, perhaps, to be a view which accords with our present pathological knowledge and clinical experience But the scope of prognosis is not limited to recovery from a disease A disease may involve more or less irremediable damage of important organs, but after having advanced to a certain extent the damage may not become greater, and the portions of the organs which remain unaffected may be sufficient for all the purposes of life and a fair state of health Or, again, a disease may be progressive, but the progress may be so slow as not to interfere with a long duration of life and a certain degree of health A chronic disease may persist, and remaining stationary, life is not endangered by the disease *per se*, but danger may be dependent on associated affections which may, or may not, have a pathological connection with the antecedent disease Or, still again, a chronic disease may be well tolerated indefinitely provided other conditions pertaining to health are favorable, but proving fatal if other conditions, which we may call accessory, be unfavorable These are considerations embraced properly within the scope of prognosis, using this term in its comprehensive sense In this paper I propose to offer some remarks on the elements of prognosis in Bright's disease, taking into view not alone the intrinsic tendency of the disease but the considerations just referred to To be able to foresee the progress and issue of diseases in individual cases, is something more than an interesting professional accomplishment It is of importance as regards the regulation of the private affairs of patients and their friends Of still greater importance is the bearing, often, of prognosis on the treatment of diseases I shall have occasion to refer to some points pertaining to the last named aspect of the subject of this paper

The prognosis in Bright's disease has relation to the form or variety of the disease Is the disease acute or chronic? This question is not always readily answered at the bedside, but I do not propose in this paper to enter into the subject of diagnosis Assuming the existence of acute Bright's disease, experience teaches that, exclusive of important concomitant affections, the disease does not end fatally as a rule, and, moreover, as a rule it does not eventuate in any renal lesion, in other words, the acute is not followed by a chronic form of the disease Exceptionally the acute disease proves fatal, or it continues in a chronic form The points bearing on the prognosis in individual cases, are essentially the same in the acute and the chronic forms These will be referred to in connection with chronic Bright's disease. There are cases of Bright's disease in which the disease cannot with propriety be said to be acute, inasmuch as there are new symptoms denoting acuteness of inflammation, but in other respects corresponding to the acute form The disease in these cases is of temporary duration, and ends in recovery, no evidence of renal lesion remaining These are cases which, as it seems to me, have not received sufficient attention by medical writers

The several designations of acute Bright's disease, namely, acute diffuse nephritis, acute tubal nephritis, acute desquamative nephritis, etc, may be applied to these cases by substituting for the word acute, subacute as distinguished from chronic The clinical history is the same as in the acute disease, except that the symptoms denote a sub acute inflammation, and, anatomically, the disease in these cases differs from the severe forms of chronic Bright's disease in the fact that there is no persistent renal lesion

In a certain proportion of the cases in which acute Bright's disease is said to accompany or follow scarlet fever and other infectious diseases, the inflammation is sub acute Occurring in other pathological connections, or when it is a primary affection, if unattended by œdema of the face or limbs, it is likely to be overlooked by those who do not observe the rule to examine the urine in all cases, whether or not the symptoms point to renal disease. If ascertained, the problem in diagnosis and prognosis is to determine whether the affection be a sub-acute diffuse, or tubular or desquamative nephritis, or whether it be a chronic form of Bright's disease? This problem is not at once easily solved. It can only be definitively solved by the disappearance of all the evidences of renal disease after some weeks, and the recovery of health.

---

[1] Read before the New York County Medical Association November 16th 1885

A diffuse tubular or desquamative nephritis, either acute or sub-acute, not infrequently occurs as an intercurrent event in connection with chronic Bright's disease. The latter affection, prior to the occurrence of the intercurrent nephritis, may have been latent, as regards symptoms other than those pertaining to the urine, and it may again become latent after recovery from the intercurrent inflammation. Here is a problem which cannot at once be definitely solved, namely, whether the existing symptoms such as coma and convulsions, dropsy, etc. are, to a greater or less extent, referable to the progress of these chronic affections, or whether they denote an intercurrent acute or sub-acute inflammation. The bearing of this problem on the prognosis is obvious. The occurrence of an intercurrent nephritis in certain cases explains the development of grave symptoms from which recovery takes place, leaving the patient in the state of health which previously existed.

A practical point, relating to prognosis after recovery from either acute or sub-acute diffuse nephritis, is the existence of a susceptibility of the uriniferous tubes to causes of inflammation. This susceptibility remains after recovery, rendering the patient liable to recurrences of the affection. This holds true whether the nephritis be a primary renal affection, or whether it be developed in connection with chronic Bright's disease.

I proceed to notice some of the elements of prognosis in cases of chronic Bright's disease. The latency in certain cases of Bright's disease for a long period, as regards any important symptoms exclusive of evidences afforded by examinations of the urine, is a most important clinical fact. What are the conditions requisite for latency? *First*, the kidneys must not be damaged beyond a certain extent. Nature has been bountiful in these as in other organs. Inasmuch as it has been demonstrated that one kidney may suffice for the adequate performance of the renal functions, it follows that a lesion may have impaired the functional power of the organs at least one half, without necessarily giving rise to important symptoms of disease. *Second*, the important organs of the body other than the kidneys must be capable of performing satisfactorily their respective functions. The functions of the digestive, the circulatory, the respiratory and the nervous system must be fairly maintained. *Third*, the laws of health, relating to alimentation, exercise, exposure to cold, mental excitement, and habits of life, must be observed. Now suppose, these, as we will call them, accessory conditions to be fulfilled, and a lesion of the kidneys to exist which diminishes their functional ability one-half, and the disease not to be progressive, life and health are compatible with the existence of chronic Bright's disease for an indefinite period. Mark the practical conclusions to which this view of the prognosis leads. In order that a chronic Bright's disease shall be well tolerated, provided the lesion has not reduced the ability of the kidneys to perform adequately their functions, the objects of treatment relate to the accessory conditions required for toleration—to wit, the conditions relating to other organs of the body, and to hygiene. We may assume the necessity for these conditions, inasmuch as the utmost limit of the functional capacity of the kidneys being constantly required, any disturbances elsewhere in the economy will be likely to involve overtasking of these organs. The situation may be compared to that of pulmonary emphysema leaving no reserved capacity of the lungs. Respiration is adequately performed if there be no unusual demand upon this function, but the pulmonary organs cannot meet any extra demand without more or less distress.

A patient comes to a physician complaining of some one of the minor manifestations of uræmia, such as headache, nausea in the morning, misty vision, or of a little œdema of the face and limbs, either with or without uræmic symptoms, or it may be that he complains only of impaired appetite and general debility. An examination of the urine shows the existence of chronic Bright's disease. Now chronic Bright's disease has probably existed in this case for months and perhaps for years. During this period the damage to the kidneys has not been sufficient to render the organs incapable of performing their functions adequately. They who are in the habit of examining the urine in all cases which come under their observation, not infrequently find the evidence of chronic Bright's disease when no symptoms pointed thereto. It may be many months or many years in these cases before the manifestations of the disease appear. I could cite cases illustrative of the latter statement. At length, the progress of the renal affection, or unfavorable accessory conditions, render the kidneys incapable of performing their functions adequately, and then appear symptoms which point to an affection of these organs. Hypertrophy of the heart without valvular lesions, and irrespective of pulmonary disease, is generally a result of a renal affection which must have existed for a considerable period. Now it is not uncommon to find cardiac hypertrophy when there has been nothing to create suspicion of an affection of the kidneys. Again, a person is seized with apoplectic coma and convulsions when apparently in good health. An examination of the urine shows Bright's disease which must have existed for a greater or less period. Instances of this kind have come under my observation.

These facts teach that so long as the kidneys are not damaged sufficiently to render them incompetent to perform their functions adequately, and so long as the accessory conditions which have been referred to are favorable, Bright's disease is well tolerated, that is, the disease is latent as regards any appreciable manifestations irrespective of an examination of the urine. The facts teach, moreover, that if the existence of the disease be known, the objects of treatment are to prevent, if possible, further increase of the renal damage, and to make all the accessory conditions as favorable as possible. The prognosis is favorable in just so far as these objects of treatment are attainable. With reference to these objects the desirability of as early a diagnosis as possible is obvious.

The question now arises, how is the adequacy of the functions of the renal organs to be ascertained, irrespective of any obvious symptoms which are suggestive of inadequacy? The answer to this question, of course, relates to examinations of the urine. Is it an injustice to medical practitioners to say that examinations of the urine often have regard only to the inquiry as to the existence of Bright's disease, and to the form of the disease which exists, overlooking the importance of ascertaining the sufficiency of excrementitious elimination? The latter is the important object of the examinations with reference to prognosis. Are not examinations often limited to specimens consisting of a few ounces of urine, the quantity passed in a given time being imperfectly known, and, perhaps, not made an object of inquiry? The amount of albumen excreted and the number and variety of tube casts are important with reference to the existence and the form of Bright's disease, but it is generally of much more importance to obtain information respecting the adequacy of the renal functions. I have frequently been struck with the fact that in examinations of the urine the specific gravity has not been taken into account. Albumen and casts in the urine show that the kidneys are doing what healthy organs ought not to do, but the more important inquiry is, are they doing what healthy organs ought to do? The kidneys may eliminate in abundance excrementitious products although albumen and casts are present abundantly in the urine, and, *per contra*, the elimination of these products may be more or less inadequate, although the urine may contain little or no albumen, and casts are wanting.

Inattention to the adequacy of the renal functions must be attributable to a lack of appreciation of the importance of this point of inquiry, inasmuch as information respecting this point is readily obtained. It suffices generally to ascertain the amount of urine passed in twenty four hours, and to employ the urinometer. The quantity and the specific gravity are data for a rough estimate of the excrementitious products, but, practically, the estimate is near enough to accuracy. It is certainly not too strong an assertion that to be satisfied with the information that the quantity of urine is normal, without knowledge of its density, in cases of Bright's disease, is a culpable neglect. An apology may seem to be required for saying that the quantity of urine may be much increased, but with a specific gravity so low as to involve great danger from uræmic toxæmia, yet I can recall a case in which, under such circumstances, a practitioner had assiduously striven to lessen the amount of urinary secretion!

The prognosis based on renal inadequacy relates, of course, to the liability to grave uræmic consequences. The object of treatment is to avert these by measures either to increase the excretory action of the kidneys or to promote the vicarious elimination of the urinary constituents, and perhaps, also, to render the system tolerant of the over-accumulation in the blood of these constituents. The last of these three indications I have been led to believe may be in a measure fulfilled by opium, but the discussion of this point would be here out of place. Let it be supposed that notwithstanding the evidences of Bright's disease examinations of the urine afford proof of renal adequacy, what bearing has this fact on the treatment? The indication for diuretics, hydragogues and sudorifics is certainly wanting under these circumstances. I submit the inquiry whether it be not an error in practice too often committed to employ diuretics, hydragogues and sudorifics in cases of Bright's disease when these are not indicated? And, if not indicated, inasmuch as they are more or less perturbatory and debilitating in their effects, they are, of course, contra-indicated. I will cite for illustration a case which has come under my observation since I began to write this paper. A man about 50 years of age, of good habits, but for a long period overworked by his duties as a banker, for the last year or longer had felt a lack of his usual energy and endurance. In other respects he had no special ailments. There were no symptoms pointing to uræmia. He had noticed an increased quantity of urine. Two examinations of the urine showed a specific gravity of 1003 and 1008, and albumen small in quantity in the first, but considerable in the second examination. Casts were not discovered at either of these examinations. The quantity of urine furnished for the second examination had been passed in twenty four hours and amounted to eighty-six ounces.

What were the indications for treatment in this case? There was not renal inadequacy. Diuretics were certainly not indicated. It was probably an object in the treatment to relieve the kidneys in a measure of the burthen of their functions by providing for some elimination by the intestinal canal and the skin, but employing for this object measures which are neither perturbatory nor debilitating. The great objects in the treatment were, evidently, prevention of further progress of the renal affection and promotion of tolerance. I presume that it will be admitted we have no knowledge of any special remedies for the first of these two objects. The treatment, therefore, must have reference to accessory conditions and to hygiene. As regards the prognosis in such a case, it relates to non progression of the renal affection and to tolerance. Under favorable circumstances, life and a fair amount of health may continue for a long period.

Is the degree of renal inadequacy, as determined by examinations of the urine, reliable for judging of the absence of danger from uræmia? This question must be answered in the negative. In some cases of Bright's disease the quantity of excrementitious principles in the urine are notably diminished for a long period without the development of serious uræmic consequences. The explanation is, that these principles may be vicariously eliminated, or their accumulation in the blood takes place without toxical effects because the system becomes accommodated to them, as opium or arsenic may be introduced in large quantities innocuously as a result of their habitual use On the other hand, in some cases a moderate diminution of the excrementitious principles of the urine is followed by serious uræmic consequences, their vicarious elimination being inadequate, and toleration not having been acquired by habit These facts are to be taken into account, in individual cases, with reference to prognosis

The prognosis in cases of uræmic coma incident to chronic Bright's disease is always grave Yet, every practitioner of much experience has met with instances in which the attacks have been severe, prolonged and repeatedly recurrent, without proving fatal This fact shows conclusively that in these instances something is added to the chronic renal affection This something may be an intercurrent inflammation, acute or sub acute, to which I have referred in the first part of this paper, or it may be referable to what I have termed the accessory conditions involved in the toleration of the renal affection The fact, it is needless to say, is of much importance as furnishing a powerful motive for the employment of efficient measures to avert impending danger Of acute pulmonary œdema the same may be said as of uræmic coma In my experience, thus far, of the grave manifestations of uræmia, the greatest is dyspnœa, called by some writers "renal asthma," which is independent of any pulmonary affection, and attributable to a toxical effect upon the respiratory centre in the nervous system I cannot recall an instance among the cases which have come under my observation, in which this symptom has not been the precursor of a fatal termination I have known, however, life with fair health to continue for years after an attack of acute pulmonary œdema incident to chronic Bright's disease, and apparently for a time placing life in imminent danger

In this brief paper I have introduced topics which might readily have led to a much more extended consideration than I have given to them My purpose has been, not to consider these topics as fully as their importance claims, but to offer them for discussion by those present at this meeting In order to allow time for their discussion, I have designedly limited the length of my paper In conclusion, I will recapitulate the points to which is invited the attention of those who are to engage in the discussion

1 Acute Bright's disease, as a rule, does not tend to a fatal result, nor to eventuate in a chronic affection

2 A sub acute diffuse nephritis having the same seat and character as acute Bright's disease, exclusive of acuteness, occurs not only after scarlet fever and other infectious diseases, but irrespective of these Occurring in other pathological connections, or as a primary affection, it is liable to be overlooked, and, if recognized, it is liable to be mistaken for a chronic form of Bright's disease

3 Acute Bright's disease or a sub acute diffuse nephritis not infrequently occurs as an intercurrent affection in the course of Bright's disease

4 A susceptibility to the causes of inflammation of the uriniferous tubes, irrespective of the existence of chronic Bright's disease, is to be recognized as an individual peculiarity

5 Chronic Bright's disease may exist as a latent affection for an indefinite period, provided the danger to the kidneys is no more than an equivalent to the loss of one of these organs, and provided the functions of the other organs of the body are well performed, and provided the laws of health are observed The disease may be well tolerated so long as the renal affection does not progress, and the accessory conditions are favorable

6 The adequacy of the functions of the kidneys has relation chiefly to the amount of excrementitious elimination of these organs, and this amount may be determined with sufficient exactness by ascertaining the specific gravity of the urine and the quantity in a given time If there be not inadequacy, the treatment by diuretics, hydragogues and sudorifics is not only uncalled for but hurtful

7 The danger from the accumulations of the constituents of the urine in the blood is not in all cases determinable with accuracy by ascertaining the amount of renal inadequacy, owing to variations in the efficiency of vicarious elimination and in the tolerance from habit of these constituents

8 Uræmic coma, occurring in cases of chronic Bright's disease, may be incident to an intercurrent temporary nephritic inflammation or to accessory conditions, so that if impending danger can be averted, restoration to the state of health which existed prior to its occurrence may be hoped for This statement applies also to acute pulmonary œdema.

9 Renal asthma is generally, if not invariably, a fatal prognostic

SOME CAUSES OF TARDY FIRST STAGE OF LABOR, AND THEIR TREATMENT[1]

BY ELLIOTT RICHARDSON, M D,

OF PHILADELPHIA

The following cases have been of interest to me, and I trust will be so to others Most of them represent instances of certain forms of dystocia, which are neither new or very rare, and the treatment of which is often a matter of censure to the accoucher

Case 1 —Mrs M, æt 28, born in England, a very light blonde of more than medium height, and apparently well formed, was taken in labor with her first child early in the morning of February 18th 1883 Her previous history was uneventful in a clinical point of view, no evidence having been elicited of any protracted or violent illness, or of hereditary taint of any kind The pains were not at first severe, but became more so as the labor advanced I saw her in the evening of the 18th, when I found the os dilated to about the size of a quarter of a dollar, thin, but soft, and not sensitive to the touch During the pains the bag of water, which was very small, seemed to press but lightly through the os Through the membranes the presenting head was felt in an attitude of semi extension, with the anterior fontanel

---

[1] Read before the Philadelphia Obstetrical Society on Dec 3 1885

occupying nearly the centre of the field The occiput was directed toward left acetabulum The presenting head was held at the superior strait, and did not advance during a pain, but it so closely fitted the lower segment of the uterus as to completely separate the amniotic cavity above from that below, and prevent any addition being made to the small amount of liquor amnii contained in the bag of waters Nor did the head show any disposition to become flexed either during a pain or its absence

Labor continued with moderate pains during the 19th and 20th, with but little effect upon the os so far as could be perceived by the touch, although it was evident that a very slow dilatation was being effected The condition of the patient during this time remained good, and gave no occasion for anxiety or alarm On the morning of the 21st, the fourth day of labor, however, symptoms of exhaustion became apparent The pulse ran up to over 100, and increased bodily heat was associated with a tendency to dryness of the mucous surfaces Still, but little progress had been made in accomplishing the dilatation of the os, which was at this time opened to about the size of a half dollar It was still impossible, without artificial dilatation, to attempt either version or forceps delivery The head had not advanced and still plugged up the lower segment of the uterus as effectually as ever

Two courses were open to me One was to dilate the os artificially and apply forceps or turn, the other was to support the patient's strength by securing to her needed rest, while at the same time promoting perfect relaxation of the soft parts, hoping that sufficient dilatation would, under this treatment, soon enable me to rupture the membranes, when the head, being exposed to pressure from the uterine contractions above it, would fairly engage, and, it was hoped, descend through the os uteri and the superior strait The latter course was chosen, and in order to carry out the treatment a sixth of a grain of sulphate of morphine was given every four hours, while the severity of the pains was still further mitigated by inhalations of chloroform at the beginning of each pain Under this treatment the general condition of the patient improved, she slept regularly between the pains, and in that way got much rest By 10 o'clock in the evening sufficient dilatation had been secured to justify me in rupturing the membranes, when the head descended and soon the second stage of labor was established This terminated successfully for both mother and child at about 11 o'clock that evening Thus was the labor happily and successfully concluded after a duration of about ninety hours, by the use of constitutional means alone

The external measurements of the pelvis subsequently taken with care showed the following dimensions

Between ant sup sp processes	8⅝ inches
Between crests	10⅞ "
External conjugate	6⅓ "
Real conjugate by inference	3⅓ "

The relation of the measurements of the distances between crests and anterior superior spinous processes precludes, almost to a certainty, the existence of a rachitic pelvis, and as all the measurements were somewhat below the normal, the small pelvis was probably one of those in which the sexual development of the pelvis was imperfect, that is, arrested in its progress The attitude of partial extension observed in the fœtal head in the case just given is explained by the fact that the extremities of the narrowed conjugate diameter formed the points of resistance to the descent of the head, and as these would naturally offer much more obstruction to the descent of the greater diameters near the occipital extremity than to the narrower ones near the face, the latter extremity would of necessity descend first In the last day of the labor I had the benefit of the advice of Dr Albert H Smith, who then, for the first time, saw the case with me

Case 2 —On March 25th, 1885, I saw, in consultation with Dr Hampton, Mrs M , in labor with her first child She had been in labor for nearly twenty-four hours without making any great apparent progress On examining I found the os dilated to about the size of a half dollar, and presenting no abnormal conditions The bag of waters was small and did not seem to press with any force through the os during the pains The head presented in the second position, and was held in a partially flexed attitude at the superior strait The patient was much alarmed at the slow progress she was making, so that the pains were becoming very rapid without materially aiding in the advancement of the labor The treatment adopted in this case was rest in bed, one sixth of a grain of morphia every four hours, and inhalations of ether at the beginning of each pain The membranes were ruptured as soon as a greater amount of dilatation had been secured, and twelve hours after I saw the case she was safely delivered of a living child No opportunity was afforded me to measure the pelvis after the termination of the labor

This case differs from the first in degree only, the nature of the impediments to the progress of the labor being the same In both the dilating wedge usually afforded by the bag of waters was wanting, because the closely fitting head prevented access of any considerable amount of liquor amnii to that part of the amniotic cavity which was in advance of it, and the head itself did not advance because it was held at the brim of the pelvis by the narrow conjugate While in normal labor, before the membranes are ruptured all parts of the fœtus are exposed to a like pressure, because that pressure is communicated to it by the liquor amnii, when the head cannot advance, and at the same time prevents any part of the liquor amnii descending past it into the bag of waters, this equilibrium of pressure becomes destroyed, that part of the fœtus which lies above the line of contact of the head with the uterine walls receiving the full force of the contractions of the uterine muscles, while that part which is below only receives the force of resistance offered by the cervix Hence, when the latter is soft and dilatable a process of molding, or adaptation of the presenting part of the head, occurs, during which the most depending part gradually approaches the os and tends to dilate it by affording that dilating wedge which is absent at an earlier period of the labor. When the head, by this process, approaches so close to the membrane closing the os as to exert considerable pressure upon the latter, all further moulding ceases, but at the same time dilatation of the os becomes more rapid, so that soon it will have progressed to a sufficient degree to justify rupture of the membranes. The effect of such rupture is to relieve the head of all impediment to the further progress of moulding and elongation. It is now thrust downward, and if the pelvic narrowing is not great will soon pass through the urine and into the os. The latter being exposed for the first time to the whole dilating power of the uterus, readily yields.

The peculiarity of the first stage of the labor, which in all its important bearings upon the welfare of the woman and fœtus widely distinguish it from the second stage, is that so long as the membranes are intact, the relations of the two beings to each other are precisely the same as those existing during the course of gestation, so that almost indefinite delay is perfectly consistent with the entire safety of both. Notwithstanding this fact the first stage of labor is often a period of great danger to both. The danger to the mother is from exhaustion, and exceptionally from rupture of the uterus, that of the fœtus is from asphyxia, due to the too frequent or too powerful uterine contractions. The mother will only become exhausted when the pains become so frequent, so violent, or so long continued that she is not able to restore her strength from time to time by sleep and perfect rest between the pains. The same condition with regard to the nature of the pains, early rupture of the membranes, and probably some abnormal state of the tissues of the uterus are essential to the production of rupture of that organ. The risk to the fœtus is due to the same condition of the uterine contractions as those which impair the mother's strength, in which the time intervening between the pains is not sufficient for the removal of the vitiated blood from the maternal part of the placental circulation and the supply of arterial blood in its place.

In considering the relations of the woman and fœtus to each other, and the nature of the dangers which threaten each in the first stage of labor, the indications for treatment might seem to be obvious. They are to preserve the proper strength and rhythm of the uterine contractions in order to secure needed rest to the mother, and sufficient regularity in the placental circulation to supply the fœtus with enough oxygen for its preservation. When, therefore, it is obvious that from any cause the dilatation of the os uteri must be a prolonged process, we should take care to protect both the woman and the fœtus from danger during its progress. Even weak uterine contraction may, by becoming nearly continuous, produce the dangers already alluded to, and so while endeavoring to strengthen them, care must be used to preserve their rhythm. In the cases which I have reported this principle was adopted in treatment. Nothing was done until the pains became abnormal in character, when the measures already detailed were instituted. In both cases morphia was used by the mouth, in one case inhalations of chloroform, in the other of ether, were used in conjunction with the opiate. In view of recent experiment there can be no doubt that ether is the safer remedy of the two, and yet it possesses so many disadvantages when compared with chloroform, and the risk from the latter when carefully used in these cases and in conjunction with the use of opium in some form is so slight, that it is a question in my mind whether we are not often justified in using chloroform in preference.

During the first stage of labor, if no painful operation is to be performed, it is not necessary nor even desirable to produce entire unconsciousness. The anæsthetic is given to mitigate pain, not to entirely destroy the consciousness of it, and at the same time to prevent both mental and uterine irritability. Opium and chloroform supplement each other to a great extent, so that when the effects of the two are combined a much smaller dose of each is required to produce a given effect than when either is used alone. This is not so with opium and ether, or to so slight an extent as to be almost inappreciable. While in a woman in labor who is under the moderate influence of opium, but a small amount of chloroform administered by inhalation is sufficient to give all the relief from pain needed. The quantity of ether to be used to produce the same beneficial effect will not be found to be less than when no opium has been given. The practical result of this relation of the remedies to each other is that in the former case the patient's suffering is relieved at once, while in the latter some time is required before any decided amelioration is experienced. In support of the above assertions I may be permitted to quote somewhat at length from the able paper of J. C. Reeve, M.D. of Dayton, O., which appeared in the *American Journal of Medical Sciences* for July, 1880. In the course of his review of Dr. Kappeler's book on "Anæsthetics," Dr. Reeve says: "The modification of the ordinary course of anæsthesia by the preliminary injection of morphia deserves attention. It is claimed for this 'mixed narcosis' that it is especially adapted to prolonged operations by rendering a far less quantity of chloroform necessary, the anæsthesia being continued with far less frequent repetition of inhalation, that the stage of excitement, both muscular and mental, is lessened, and that thereby the dangers of anæsthesia are diminished. Mollow, one of its enthusiastic advocates, goes further, and claims that the action of the morphia lessens irritability of the air passages, and so restrains reflex action upon the heart, that in this respect its effect is similar to division of the *par vagum*, also that the morphia in small doses increases the blood pressure by its action on the motor ganglia of the heart and by its contraction of the peripheral vessels, thereby opposing the chief deleterious influence of chloroform from the beginning by presenting an opposition which must be overcome before the vascular pressure can sink below the normal." As to the smaller quantity of chloroform necessary for a given length of anæsthesia, the less amount of muscular excitement and the modified mental condition, Dr. Kappeler says "the advantages have been on various sides clinically proved, and are only seldom called in question." The advantages claimed by this method have been denied by Demarquay, but confirmed by Heitel, and in part by Konig. The latter does not, however, believe that the dangers from chloroform are at all diminished by the use of morphia. Dr. Reeve further stated that "none of the advantages of chloroform-morphia narcosis attach to ether-morphia narcosis," and that Dr. Kappeler's "experience . . . seems to show that in all respects the combination is injurious rather than beneficial."

Reference is made in the paragraphs which I have quoted to the use of the agents mentioned in surgery alone. They apply in the main to obstetrics as well, although I do not see any disadvantage in theory, nor have I in practice, in the ether-morphia narcosis as compared with ether narcosis alone. In comparing the effects of chloroform and ether in the first stage of labor, the former has, I believe, a decided advantage in its effects upon the os uteri, in promoting relaxation. All the advantages above attached to it are at the same time coupled with its easy and pleasant administration. Against these, however, must be offset the danger from its use. Exactly how great this danger may be in careful hands, cannot be told. In many cases of fatal chloroform poisoning it has been the first few drops that have killed; in such cases, therefore, the diminished amount rendered necessary by the morphia previously given would be no safeguard. I believe, however, that the danger is so infinitely small when thus given that we are justified in using it in painful cases of labor, especially when the chief difficulty lies in the rigid condition of the cervix or other soft parts of the parturient canal, and that in such cases the use of morphia either by the mouth or hypodermically in moderate doses greatly facilitates accomplishment of the end in view. At the same time I would not be understood as advising the use of chloroform instead of ether in ordinary cases of painful labor. Since in these the only object is to relieve pain, ether answers the purpose, and being the safer remedy, should be preferred.

Another cause of tardy first stage of labor is *premature rupture of the membranes*. This accident is apt to interfere with the progress of labor in the stage of dilatation by the absence of the dilating cone formed by the membranes in normal cases, and by direct contact of the presenting part of the fœtus with the uterus. Owing to the former the uterine force is exerted at a disadvantage, and by the latter the os is apt to become rigid, dry and sensitive, while the mother's suffering is much increased. The fœtus is exposed to exceptional risk when obliged to pass through the entire stage of dilatation of the os without the protection of the liquor amnii, for not only are its parts subjected to injurious pressure, but owing to the much greater degree to which the uterus can contract, the interruption of the supply of maternal blood to the placenta is much more complete; yet it is possible for the fœtus to retain perfect vitality for many days after the escape of the liquor amnii, as is shown in the following cases:

Case 3.—Mrs. M., æt. 38, sent for me in June, 1878. I found her pregnant with her eighth child. She was in a state of great anxiety on account, as she asserted, of the escape of the waters which she told me had come away in large quantities. Examination did not convince me of the accuracy of her statement, and I concluded she had mistaken the source of the aqueous flow. One thing was certain, however, and that was that she was not then in labor, although very near her time. She was enjoined to keep quiet, though rest in bed was not insisted upon. Five days afterwards I was again sent for, and found her in the first stage of labor, but no membranes could be felt. She was safely delivered of a living child.

If the membranes really did rupture at the time supposed, this is the longest period between the rupture of the membranes and the coming on of labor I have met with personally, but the following cases represent the possibility of the preservation of the vitality of the fœtus under these unfavorable circumstances for a much longer period. Dr. Matthews Duncan reports a case in the *Lancet*, for June 29, 1872, in which forty-five days elapsed from the time of the rupture of the membranes to that of the birth of the child. During the whole of this period the liquor amnii continued to escape as it was secreted, and the size of the uterus as felt through the abdominal walls was greatly diminished. When labor took place a seven months fœtus was born, and lived for several hours, although much deformed by the protracted pressure to which it had been exposed. In the *Medical Times and Gazette*, for Sept. 18, 1852, Dr. John Gould reports a case in which twins, a boy and girl, were born, living five weeks after the water had come away. Although the above cases are well authenticated, especially that of Dr. Duncan, in which the most careful observations were made, yet the asserted escape of the liquor amnii must be always received with great caution. The sources of the aqueous flow which may be mistaken for the liquor amnii are numerous. The spontaneous escape of urine is not infrequently mistaken by the patient for that of the liquor amnii, while the flow of profuse secretions of Cowper's glands, the rupture of a cyst of the chorion, of another developed or undeveloped ovum, of a cyst lying between the chorion and the amnion, may prove the source of the supposed liquor amnii.

That the membranes may again close after having been ruptured has been proven. This is not accomplished by a process of healing, as was at one time supposed, but by the sliding of the different layers, of which the membranes are composed, upon each other, by which a small opening may be effectually closed. After closure of the amniotic cavity in the manner described, the liquor amnii again collects, for this fluid is continually secreted, as first shown by Winkler, and demonstrated in Matthews Duncan's case.

A source of error in diagnosis as to the origin of the flow is in rupture of the membranes at a point within the borders of the os and out of reach of the examining finger. Here vaginal examination shows the presence of the membranes closing the os, and which become tense during the pains, while the opening becomes patulous and admits of the escape of the liquor amnii during the periods of relaxation. Notwithstanding the occasional occurrence of cases such as I have just given, the usual result of the escape of the waters, at whatever period of gestation it may occur, is to precipitate immediate labor, and this labor, as already shown, is unusually distressing to the mother, and at the same time subjects the fœtus to increased risks. We have seen that the peril to the fœtus is due solely to the persistence or the frequency and violence of the pains, interrupting too frequently, too persistently, or too completely the supply of maternal blood to the placenta.

The abnormal pains are not alone due to the irritation of the mouth of the uterus by the direct contact of the fœtal parts with the uterus, but also to the mental condition of the woman. Most women view the occurrence of rupture of the membranes at the beginning of labor, with anxiety and alarm, and such a state of mind is very apt to be reflected injuriously upon the action of the uterine muscles. Hence care is necessary in the conduct of such labors, first of all to reassure the patient, then to enjoin rest as soon as the pains come on, and, if they are at all disposed to assume an abnormal character, to keep the woman constantly in bed and give opiates to control the severity of the pains, to preserve the proper rhythm of the contractions, and to favor dilatation of the os.

Before closing this paper I wish to refer to another, though kindred, subject. I allude to the obscure symptoms sometimes occasioned in the parturient woman by the presence of intercurrent acute disease. I have several times been deceived by symptoms due to the malarial poison becoming manifest during labor, or in the lying-in period, which have in the one case closely simulated approaching exhaustion and in the other acute local inflammation. Sometimes the manifestations of the presence of this poison consist of chills, followed by fever, while in other cases there is more or less severe neuralgic pain alone. When the previous history of the patient has been obtained, and such history shows the presence of the malarial poison, the diagnosis of the true nature of the symptoms is not difficult, but it is so when no evidence of previous symptoms of intermittent fever is attainable. The following case is one of this character.

Case 4.—Mrs. C., æt. 22 years, was taken in labor with her first child early in the morning of June 8th. As she had been referred to me for attendance in confinement by her regular medical attendant, I had no opportunity of obtaining a personal knowledge of her previous health. I learned, however, that in so far as she knew she had never suffered from malarial poisoning, but she had suffered very much from almost nausea and frequent vomiting at the beginning and towards the close of her pregnancy. The labor continued throughout the day, and in the evening became quite severe. The vertex presented in the first position. As the os dilated but slowly, and the patient's sufferings were severe, I ordered her to take a full dose of morphia. An hour or two later her symptoms were not satisfactory, her pulse was beating at the rate of more than 100, her mouth showed a tendency to dryness, constant thirst existed, and the patient frequently vomited bilious matter. Although the uterine contractions were very painful and frequent, they were short, weak, and inefficient, when the patient had been over twenty hours in labor. As the os was pretty widely dilated, I decided, in view of the symptoms, to apply the forceps and establish the second stage of labor, believing the physical strength of the patient to be sufficient to safely accomplish the subsequent stages of delivery. She was accordingly etherized to complete unconsciousness, and the head of the child brought through the os and down upon the floor of the pelvis. The forceps were then withdrawn. As the effect of the ether passed off good expulsive pains came on, and in due time a living child was born without accident.

The mother did well for the first nine days after delivery, although the frequent pulse continued, with much coating of the tongue and some headache, but without any febrile symptoms whatever. On the tenth day, however, while still kept in bed, she was seized with pain in the left iliac region, which, on the following day, became violent, and did not yield to the small quantity of opium (a remedy which she could not take without very disagreeable symptoms) which I induced her to take. This pain was not accompanied by fever, and I had no doubt was malarial in its origin. Acting upon this belief she was placed upon full doses of quinine, when not only did the pain speedily disappear, but with it the frequent pulse, the headache, and nausea. The patient had come to live in the house in which she was confined but a few months before her confinement, and the first evidences of the presence of the malarial poisoning in her system were those which appeared during her labor and subsequent lying-in. The dryness of the tongue and much of the nausea appearing during labor were probably due to the opium I had given her.

THE ÆSTHETIC APPLICATION OF DENTAL ART[1]

BY W. AUSTIN CURRIE, D.D.S.,

INSTRUCTOR IN CARVING AND PLASTIC MANIPULATION BOSTON DENTAL COLLEGE

On different occasions during my period of practice, I have been requested by patients to explain why it is that dentists seem to know so little about art. What can I say, more than to confess that I do not know? I have found repeatedly that such a reply does not in any sense afford satisfaction to the inquirer, or tend to extricate me from an embarrassing position, but only serves to push me more deeply into difficulties. The query in the outset was prompted, probably, by a passing thought, and had they received any convincing reply, their momentary inquisitiveness would have been gratified and the subject dropped then and there. But, perceiving my inability to give any reason why a profession so entirely made up of artistic requirements, should have no facilities for cultivating an æsthetic taste in the dental colleges, then curiosity naturally became aroused, and I regretted that I allowed them to see that the question was too much for me.

---

[1] Read before the Annual Association of the Boston Dental College Boston October 13 1885.

And can we wonder greatly that such questions meet us, when we reflect that one of the two more important branches of dentistry consists entirely in restoring nature by art? What is Art? Of all the short words in our language there are but few which are handled more frequently, and that, too, by persons who really have but a faint idea of what those three letters signify. How many of the thousands of sight-seers who visit the galleries of our own and foreign countries, and are thus permitted to look upon the work of celebrated artists, comprehend that the creations before them are the result of the careful study of a lifetime. They are only conscious of the general effect of a work of art, and do not realize what a vast amount of study and labor is required to attain such grand results.

For the sake of illustration, let us for an instant glance at a painting. The artist has presented his work true to life, almost too much so to be pleasant. It has been truly said, that, next to the actual pain experienced in being a party to sorrow is the touching suggestion which a faithful picture communicates. Wandering over the canvas, our eye first notes the general interest, we remark the excellency of the drawing, the perspective, and the coloring, but soon our attention becomes riveted on the central object, a representation of an old woman, a glance at whose face at once proclaims the *special* motive of the work. The scene is a court of justice, with all of its characteristic stiffness and its unpleasant suggestiveness. Spectators are there with faces full of feeling. The learned lawyers, in powdered wigs, are there true to life, while, in contrast, stands this poorly dressed woman before the judge who is about to pass sentence of death upon an only son. She is offering a mute appeal—no words of supplication, but the trembling arms and old withered hands outstretched, tears flowing over wrinkled cheeks, the intense agony so plainly depicted on every feature, is an appeal more touching than any eloquence the tongue could have offered. Such a picture commands the attention of every beholder, but how few realize what an immense amount of work it required to reach such a mark of perfection. What an insight into human nature was called for to enable the artist to portray this touching scene. Do they reflect upon the fact that a knowledge of anatomy, physiology, and other studies are required, as well as of colors and their application? Many persons have a faculty of painting a fair representation of the human face upon canvas—they are said to be talented in that respect. But if they expect to approach anywhere in the vicinity of perfection, they must be acquainted with the forms of the bones of the head, as well as the muscles and softer tissues. How can they truthfully give the form of the outside without some knowledge of the framework within.

Now, if this knowledge is indispensable to an artist, why should it not be equally desirable that the mechanical dentist should be conversant with its principles also? An artist, by making himself intimately acquainted with the human form, and by his perceptiveness, power of imitation, and deftness of hand, can place a representation of it upon canvas. He can counterfeit any feature and bring forward any expression. If his work be sculpture, he does away with deception by placing actual shape before us. The one deceives the eye by light and shade, the other gives us substance, the natural light contributing the appearance by which we distinguish the different forms of objects. With the dentist, the object is the same, but, unlike the former, he has not blank canvas or hard stone to work upon, but has living tissues on which he can learn to put different expressions. Many will say that expression comes from the mind, and that we have no control over it except in our own features. True, it comes from the mind, but it shows itself upon the face, and different expressions are but the result of the action of different muscles in moving portions of the skin (and underlying tissues) so that a new light strikes upon it, this varying light, with its consequent shade, adds a new aspect to the countenance.

An artist can change the whole expression of a painted face by the addition of a little extra light and shade, and that with but a few strokes of the brush. All he does is to *apparently* raise some portions with light and cause others to recede by rendering them a little darker. If colors will change the countenance by appearing to raise portions, is it not patent that *actually* raising those parts will do it even better. It takes but the slightest change in position of the lips and adjacent parts to make a great change in expression. You will put greater faith in this assertion if you will experiment a little yourselves. Take a portrait, or, better, two, precisely alike. The lithographs such as are exhibited in the street-windows by theatres will answer every purpose. It will be best if we choose a lady's face, as it is with the ladies' features, principally, that we will wish to utilize our knowledge, if it be found worthy of use. It is, we will say, a full face, and one with a pleasant look about the features. Now with a crayon make a short downward mark from each corner of the mouth on one picture only, as we will need the other for comparison, then with your finger end rub in a little white just under the lower lip, adding a trace of shade to the upper lip in the same manner. What is the result? You have a face the owner of which you would think had not an earthly friend. Now, after erasing what you have added, reverse the order of things by placing the light on the upper, the shade on the lower, and drawing your lines upward from angle of mouth, instead of down, as before, and you will find the result reversed also; for the face is found now to be bright and cheerful. By going a little further, and placing two curved lines from base of nose downward, past corners of mouth, with convexity outward, you have a grin that will often prove contagious. A thin piece of paper placed under the lip on the alveolar ridge, will add its quota to the expression.

These changes have been effected by a few marks that would be hardly noticeable anywhere else on the drawing, unless about the eyes If this can be done on paper, can it not be accomplished, say in part, at least, with the face itself? Of course, it is an entirely different matter when we come to put our theory into practice, as it will require that we educate the eye by long and close observation of nature, and teach the hands to follow its dictates The lips, of all the features, are the most direct index to the feelings, and the expression characteristic of every face is due almost entirely to the effect of light and shade about the lips It is (I believe) because we forget this fact, that we often feel dissatisfied with our work even when the patient expresses pleasure with it I believe, too, that it is owing to the fact that the profession shows want of knowledge, care, or ability in this respect that we meet with so many faces whose owners wear features that are blank, or almost expressionless about the mouth When we hear such common expressions as a beautiful smile, or eloquent lips do we ever ask ourselves in what does this beauty or that eloquence consist?

Our course of studies in mechanics is, to the best of my knowledge, perfect as far as it goes, but is it carried out to its greatest extent? For instance, we are told to carefully note the play of the lips over the wax articulation, but *what is it* in the play of the lips that we are to study? I can but answer for myself I was expecting to hear *expression* treated in every detail, and felt disappointed when, upon nearing a situation where I felt genuine interest, I found that the points which seemed to me of the utmost importance were passed over with a casual remark or two I know when I say this that no one will infer that I am trying to pit my limited knowledge and experience against years of practical work of my instructors Perhaps our teachers expected the students to understand without further instruction Perhaps my classmates, by superior ability, were enabled to bridge over what seemed to me a break in the most interesting part of our course, or it may be that I am expecting too much of dentistry

Now, the question is, how to proceed in order to derive any professional benefit from the ideas here suggested As I regard it, the first requisite is to study nature, and study closely As far as the human countenance is concerned, no one has more opportunity for observation than the dentist Our business carries with it a certain license, so that we can examine a patient's features critically without giving offence Unlimited chances are thus offered, and we can watch every face that we work over, and then we must analyze what we see

Note the general expression, the fulness of the lips, and the tooth development beneath them Watch where and how the light strikes the face, and what is the result of different lights upon the same features If any teeth are absent, note the effect upon the expression Observe color of hair, eyes, and complexion, and then examine the exact shade of the teeth, also the size and shape of the teeth as compared with size and shape of features, form of head, and general build of body This can be done by a trained eye, while the patient undergoes the usual examination without suspecting but that your undivided attention is given to the teeth Then compare this with the next face that presents itself If this is to afford any benefit to the practitioner, the observation and comparison must be critical We are too apt to bestow a casual glance, and forget as soon as the patient is gone, whereas we should memorize or make a note of the most important points

To make ourselves *masters* of the art of light and shade, we must go even further than this *We must cultivate a tast for art* We subscribe for some one or perhaps all of the dental journals—why not for an art journal as well? We try to keep ourselves posted on all the new ideas in our profession—why not mix up a little art with them? Suppose that we cannot see at first that it is benefiting our work, we cannot deny that it is refining, as well as affording a pleasant change from an occupation that is in many respects disagreeable Then when we have leisure we can turn our hands to a little modelling

If we have a small space in our laboratories, why not utilize it by making a bench in a corner that has a good light, and then investing in a few pounds of artists' clay and one or two modelling tools By an hour's work and the outlay of a few dollars, and we have a way of passing our spare moments that will be novel and instructive For it is in modelling and casting that the effect of light and shade is made most manifest If we have doubts of our ability to reap any benefit from modelling, why not try casting choosing a friend or a patient's face for a subject? Suppose that we try it in this way, our subject being a person who wears a full denture and with a bare face? First make a mould of the face (wax will answer) with the mouth empty Then one with the plates in position, and then, after building up with wax in different places on the plates, place them in the mouth and make a third mould Now to cast with plaster The wax mould will of necessity be thin, so that it is best before casting to build up around the outside of the mould with sand so that the weight of the plaster, when soft, will not change the shape Then if you will tint the water with powdered or dry umber and a little vermilion before you mix the plaster, the latter will more nearly resemble the flesh color After casting all three, and allowing the plaster to set, if you will remove the wax from each you will be surprised at the entirely different expression on each face The question is, where you will find a person who will submit to so much trifling? I have experimented with many different faces, and thus far they have been so deeply interested in the novelty of the work that I have yet to meet the first complaint In conclusion, let me say that I believe that if dental practitioners who have never tried this, would do so, they would be surprised and pleased with its effect upon their laboratory work At first, I became discouraged, and thought that I failed more often than I succeeded, but now, when I look back I find that I have not failed On the contrary, I have succeeded so far that now I am where I can see what can be accomplished if one is perseverant I am convinced that the study of facial expression has helped me wonderfully, and has given a new impetus to work that before seemed monotonous One thing in which I think all will agree with me is this, that a little art cannot injure us in any way, even if it is æsthetic

Cambridgeport, Mass , Oct 13, 1885

AN ADDITIONAL CASE OF ACUTE PHTHISIS—QUICK CONSUMPTION—RECOVERY

BY P C JENSEN, PH C, M D,

OF CHICAGO

Mrs A , age 27 years, married, mother of two children Family history of phthisis on mother's side Lost one brother of pulmonary tuberculosis, at 23 years of age, about one year ago The appearance of Mrs A when first seen by me was that of extreme emaciation Her anæmic and debilitated condition gave her a dull and sallow expression, exhibiting with marked distinctness that peculiar white pearly and glossy appearance of the sclerotic, and ocular conjunctiva so characteristic in phthisical subjects

The patient had suffered considerable loss of strength from a long-existing menorrhagia, to such an extent as to reduce the inter menstrual period to ten days During this inter-hæmorrhagic interval she suffered additional exhaustion from a profuse leucorrhœa She was troubled with a severe cough, worse in the afternoon, and continuing until after midnight She expectorated large quantities of yellowish green, tenaceous, but putrid matter

Toward morning she saturated her clothing with a profuse and debilitating perspiration Her temperature reached 102° in the afternoon, but was subnormal in the morning Respiration was bronchial in character, 32 per minute Pulse 140 She experienced a great deal of pain in her left side, and suffered from an almost continued vertical headache Excessive coughing induced at times a reflex nausea

There was decided bronchial respiration in the left lung Increased vocal fremitus and a variety of dry, moist and crepitant râles were audible over the superior anterior two thirds, and superior posterior one-half, of her left lung Right lung not affected The patient had no appetite, her bowels were constipated, and her vital powers greatly exhausted, due to destructive retrograde changes instituted within the pulmonic tissue

By active therapeutic interference, consisting of tonic, nutritive and restorative treatment, and by the administration of remedies having antiseptic influence over pulmonary retrograde processes, also by the additional salutary effects afforded in checking exhausting discharges, viz menorrhagia, leucorrhœa, and night sweats, the patient soon gave evidence of improvement, and before long was convalescent Each case demands a therapeutic difference in treatment, according to the stage of the disease, the peculiarity of the local lesion, its symptomatology, complications, etc , and therefore such variation should consist in the prudent administration and application of rational medicine, so that each remedy shall meet a certain, definite indication

Each case must be treated upon its own merit For the menorrhagia and night sweats ferruginous preparations, ergot and belladonna were given in combination after meals, iodoform for its local antiseptic effect upon the lungs Nux vomica, maltine, digitalis, comp syr of hypophosphites, etc , were administered for their tonic, nutritive and restorative influence The patient is restored to a condition of healthfulness, with no apparent symptoms of return of her disease November 15th an examination revealed normal vesicular respiration She has no cough, no pain, has gained ten pounds in body weight in the last thirty days She is doing her own housework

It must be remembered that there exist various forms of consumption, which differ clinically Each case therefore requires a difference in treatment Again, in the same case there is a development of symptoms forming stages of the disease, each stage demanding its own treatment Some forms of phthisis if not too far advanced, admit of recovery Other forms, especially well advanced cases, speedily or slowly run on to a fatal termination Pulmonary therapeutics, by means of the Pneumatic Cabinet, can be efficiently applied directly to the respiratory mucous membrane of the air vesicles, with beneficial results, in connection with the medical treatment

Room 508, Chicago Opera House, Chicago

OSSIFICATION OF THE CHOROID[1]

BY LYMAN WARE, M D

OF CHICAGO ILL

Although calcareous formations within the eye are of frequent occurrence, osseous formations are not so common but that the following case may be instructive both pathologically and clinically For a long time all hardened deposits in the eye were considered calcareous, and the formation of true bone was much doubted Knapp collected and studied quite a number of cases of ossifications within the eye, which he published in the *Archives of Ophthalmology and Otology*, Vol ii, pp 1–35 At that time he considered the capillary layer of the choroid the origin of all intra ocular ossifications Since then a number of cases have been reported (Knapp's *Archives of Ophthalmology*, Vols vi and ix) in which they occurred in other structures

The formation of bone is usually preceded by prolonged and frequently severe intra ocular inflammation, and is generally of traumatic origin The development of bone requires no other antecedent condition than a vascularized connective tissue

The following is a brief history of a case that came under observation Mr J D, farmer, æt 20, of American birth, when 9 years of age was struck accidentally in the right eye with the handle of a pocket-knife, which completely and instantly destroyed vision, and caused severe inflammation in and about the eye, accompanied by great pain and much distension of the ball and surrounding tissues This continued for several weeks During the five or six subsequent years the injured eye caused little or no trouble During the winter of 1875 and 1876, when he was 16 years of age, or seven years after the accident, as a result of severe exposure the injured eye again became painful, at times better, at times worse Pain usually subsided in a few days if the patient remained quiet in a darkened room, and made frequent hot applications to the eye In the winter of 1880, left eye began to be somewhat sensitive to light, particularly to artificial or light reflected from snow

---

[1] Read before the Chicago Society of Ophthalmogy and Otology October 13 1885

The patient was first seen in July, 1880 The R or injured eye was somewhat atrophied, tension greatly diminished, and slightly tender on pressure, although not markedly so In the L eye there was photophobia, lachrymation, slightly sluggish pupil, and supra-orbital neuralgia Vision for the distance tolerably good (V $= \frac{15}{20}$), but it was quite impossible for him to read even Jæger No 11 more than a minute or two on account of the lachrymation and ciliary neuralgia which it induced Ophthalmoscopic examination showed well marked neuro retinitis

I advised immediate enucleation of the injured eye, but it apparently gave him little trouble, being only slightly painful at times, and as he was a farmer, he did not like the idea of wearing an artificial eye and submitting to all the inconvenience such an eye entails He declined to submit to the operation and returned nome In the latter part of August, five or six weeks after his first visit, he returned to the city and was quite willing to submit to the enucleation of the injured eye, as his symptoms had grown much worse after reaching home Tenderness on pressure of R eye was much increased, and the eyeball intensely injected In the L eye considerable pain and supra orbital neuralgia, sluggish pupil and photophobia V $= \frac{10}{20}$

August 20, 1880 —Patient advised to remain quietly in darkened room and take the following

℞ Dover's P grms 2
Quinæ Sulph 3
Div in cap No 20 S One every four hours

August 24 —Inflammatory symptoms not so great, ether was administered and the injured eyeball removed, although with some difficulty, owing to its atrophied condition, and the dense fibrous adhesions which completely surrounded it

August 25 —Patient fully recovered from the effect of the ether, and the ciliary neuralgia less than it had been for months Ordered pil proto iodid hyd (gr ¼), one three times daily

September 10 —Wound nearly healed, neuralgia entirely absent, vision much improved ($\frac{15}{20}$), and patient allowed to return home, but advised to take the following alterative for six weeks or two months

℞ Pot Iodid grms 16
Tr Cinchon rub 20
Syr Sarsap Co 14
M
S A teaspoonful three times a day, in water after meals

December 4 —Patient returned to the city for artificial eye, no recurrence of neuralgia and vision fully restored (V $= \frac{20}{20}$)

The eye was placed in Muller's fluid for several weeks, then in absolute alcohol, and after three months was partially divided in its equatorial diameter The vitreous was liquefied and immediately escaped, leaving the retina in the form of a cord extending from the fundus or posterior portion of the ball to the anterior, where it expanded funnel like and enclosed a calcareous lens The ossification was situated in the choroid, its thickest portion corresponding with the entrance of the optic nerve

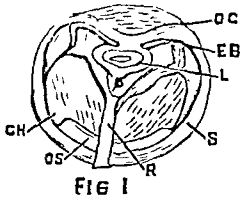


FIG 1

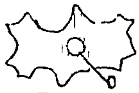


FIG 2

FIG 1 —Antero posterior section of the eye *OS*, ossification *R* retina passing through it and cord or funnel like extending forwards to the calcareous lens *S* sclerotic *L* lens *CH* choroid *CB* ciliary body *OC* opaque cornea
FIG 2 —Ossification (full size)

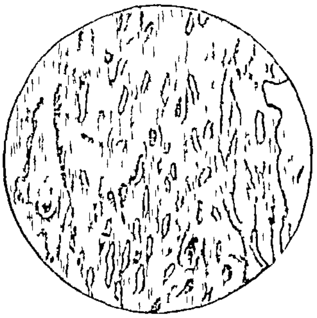


FIG 3

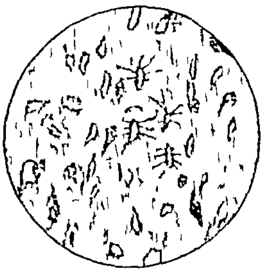


FIG 4

FIG 3 —Microscopical appearances with No 4 object glass
FIG 4 —Appearance under No 10 immersion lens

The eyeball was somewhat atrophied, measuring a trifle over two centimetres in the antero posterior diameter, and a little less than two centimetres in its equatorial axis The ossification measured fifteen mm in length, concavo convex, the concavity looking forwards, and from four to eight mm in width Measured from the optic disc it was a few mm longer on the outer than on the inner side Its greatest thickness, which was at the optic disc, was two mm The posterior or convex surface of the bone was well marked with choroidal pigment Five years have now elapsed since the enucleation, and no relapse has occurred in the eye sympathetically affected

The points of special interest in the case are the slight tenderness in the eye primarily affected, the rapid and complete recovery, and restoration of perfect vision after the injured eye had been removed The question arises, if in cases of sympathetic ophthalmia neuro retinitis be the predominant symptom, is not the prognosis more favorable than when cyclitis predominates? Which nerves are principally concerned in the former and which in the latter?

This case is certainly confirmatory of the conclusion arrived at by Knapp (*Archives of Ophthalmology and Otology*, vol ii, p 34), that "the diseases which lead to ossific productions are chronic inflammations of the interior coats of the eye called internal ophthalmia by the earlier, irido choroiditis by modern writers"

MEDICAL PROGRESS

JEJUNOSTOMY.—At the meeting of the Clinical Society of London, on Nov. 27, MR. C. H. GOLDING-BIRD related the case of a man, æt. 46, who had had symptoms of pyloric obstruction for ten months. When admitted into Guy's Hospital, a tumor could be felt at the seat of the pylorus, and the man's general condition was one of extreme emaciation through the inability to retain the food he took, and his voluntary abstaining from eating on account of the pain he suffered. After three weeks treatment, under Dr. Carrington, by drugs and washing the stomach out, he passed into the author's hands, and when all the risks had been explained to the patient, and all methods of palliation had failed to improve his condition, arrangements were made to explore the diseased parts, and remove them if expedient. He therefore, on October 25, 1885, cut down on the pylorus with a view to performing pylorectomy, following the lines laid down by Billroth; but, finding the tumor adherent to the liver, determined to go no further in the radical operation, but to convert it at once into a palliative one of opening the jejunum, in other words, of performing jejunostomy. Having seized the jejunum two inches from the duodenum, it was held upon a pair of tongue forceps, whilst the wound in the parietes was united; to the lower or right end of this wound was the jejunum now stitched by interrupted sutures. The patient suffered in no way as the result of the operation. He was fed partly by rectum, partly by the mouth, until the third day, when the bowel was opened and food administered solely through the fistula. It was observed that, as long as the meal amounted to a pint, or nearly so, the patient each time he was fed had a severe attack of indigestion, but that this ceased when the meal did not exceed ten ounces. On this the author founded the suggestion that some cases of indigestion were due to the pylorus allowing too free passage of chyme, rather than to anything wrong with the gastric or pancreatic secretions. Everything went on perfectly well till the ninth day, the patient putting on flesh, but on that day, through an error in feeding him, some food passed into the peritoneum, and he died in twelve hours. The post-mortem showed such adhesion to, and infiltration of, the liver, from the cancerous pylorus, that pylorectomy could not have been performed. Except the narrow track made by the probe, and along which the food passed into the peritoneum, the adhesions of the bowel and parietes were perfect. The author than reviewed the operation of pylorectomy, speaking in favor of it in suitable cases, and the operation of gastro duodenostomy, as performed by Wolfler, and pointed out the great drawback, in this operation, that the stomach was not relieved of its physiological duties at all, the pylorus not being required to act. For the operation of jejunostomy, as he termed the one that he detailed, he claimed that, whilst it possessed the same disadvantage as gastrostomy, in that the patient had to be fed through the fistula, it was otherwise the best palliative operation for pyloric cancer, inviting less risk than gastro-enterostomy, and requiring less interference in its performance with the other viscera. By duodenal digestion, he also pointed out, full nourishment could be assured, and there was for physical reasons less chance of regurgitation of food than after gastrostomy, regurgitation in these cases being a serious drawback to that operation in œsophageal constriction.—*Medical Times and Gazette*, December 5, 1885.

CONTRIBUTION TO THE STUDY OF MORPHIOMANIA.—DR. MARANDON DE MONTYEL summarizes the results of his investigations of the production of morphiomania as follows:

I. Morphiomania has its origin either in a demand for intellectual excitation and psychical pleasure or in the acquired habit.

II. Injections of morphia have as a result a double action: a benign and a special action upon the nervous system by which its natural function becomes impossible after a certain term without the assistance of the poison. These two effects are separate and distinct from each other; the second is manifested when the first is no longer exhibited. There are, then, two kinds of morphiomania; the one resulting in temporary good effect, the other a vital necessity; and after a variable period the cases of the first order pass over into the second.

III. This double action of morphia upon the nervous system renders it an extremely dangerous medicament, and it therefore should not be prescribed hypodermically except in cases of absolute necessity.

IV. It is also extremely dangerous to combat morphiomania by the substitution of alcoholics, inasmuch as chronic alcoholic insanity may result therefrom.

V. Morphiomania may always be treated by abrupt withdrawal of the drug, except in conditions when such methods are contraindicated by the vital forces of the patient or concomitant pathological phenomena. The method should also be abandoned if reactionary collapse result.

VI. In the treatment of morphiomania by gradual suppression of the drug, it appears advantageous to combine with the progressive diminution of the dose the recoil of momentum by fusing two injections into one.

VII. The medico legal questions pertaining to morphiomania are certainly based more upon extra-judicial than upon judicial clinical observation.

VIII. Observation shows that a morphiomaniac may have great energy of will while the poison has not yet determined any disorder of intellect. There is here a serious proof of what has already been said, that responsibility only ceases with the period of psycho physical marasmus.

IX. Relative to the responsibility of morphiomaniacs who commit crimes or offenses to satisfy their passion, it is, perhaps, necessary to distinguish whether they have yielded to the simple appetite for a pleasant effect or to a physical necessity dependent upon the instinct of self-preservation. A conclusion of irresponsibility in the latter case seems justified.

X. In the exact appreciation of the intellectual troubles caused by the abuse of the hypodermatic injection of morphia, it is important correctly to appreciate the existence of predisposition to insanity, and the delirium produced concurrently by the absorption of other substances, such as alcohol and belladonna

XI It is necessary to retard the continual progress of morphiomania by disseminating general information in the upper ranks of society concerning the deplorable and certain evil effects following the use of the drug, and to exercise an active surveillance over pharmacists, and impose special penalties upon those who dispense morphia without a physician's prescription —*L'Encephale*, May and June, 1885, *Amer Journ of the Med Sciences*, Oct , 1885

BACTERIOTHERAPY —In a recent number (*British Medical Journal*, August 29, 1885), we gave a short account of Professor Cantani's experiment in "bacteriotherapy," in which a phthisical patient was subjected to inhalations of bacterium termo The result was that bacillus tuberculosis disappeared, and the condition of the patient was wonderfully improved Dr Salama, of Pisa, reports another case of the same kind In a case of phthisis, with a cavity in the apex of the left lung, and various patches of consolidation, Koch's bacillus disappeared within about a fortnight after the inhalations of the bacterium termo were commenced, all the other symptoms improving at the same time Dr Maffucci, Professor of Pathological Anatomy at Pisa, who verified the diagnosis, prepared the bacterium culture A few drops of spring-water were added to a sterilized solution of gelatine in meat broth with peptone After a day or two, colonies of various micro-organisms made their appearance, and amongst them was the bacterium termo Under the microscope, a sterilized platinum needle was dipped into this, and then introduced into another portion of the gelatine preparation After two days, this was found to be a pure culture of the bacterium termo The contents of one test-tube prepared in this way served for one day's inhalations, being mixed with a meat broth made from 150 grammes of beef to 200 grammes of water, and left for eight or ten hours, according to temperature If left too long the putrefaction became insupportable to the patient Broth so prepared was given by Siegel's spray producer every day in divided doses Sufficient time has not yet elapsed to show whether the improvement was permanent It is not quite certain that the bacterium was the sole agent of amelioration here It is possible that the meat-broth may not have been without its effect, and it is just within the range of supposition thar the bacterium has a psychical influence on physician as well as on patient, not less important than its alleged bacillicide properties —*Brit Med Journ*, Nov 28, 1885

A NEW ANTISEPTIC —Those of us who use iodoform in the consulting-room must frequently have been seriously annoyed by its powerful and persistent smell Drs Silber and Ciammician, of Rome, have found an admirable substitute which has all the advantages of iodoform without its odor or, it is said, its poisonous properties This substance is iodol, which occurs as a dark powder with a slight scent, reminding one of thymol It is very slightly soluble, and is best used either in substance or suspended in glycerine, or made into an ointment with vaseline A lotion can also be made by dissolving 1 gramme of iodol in 16 grammes of alcohol and adding 34 grammes of glycerine Most brilliant results have been obtained by the use of the substance itself on chancres and syphilitic adenitis In simple indolent ulcers, too, the use of the iodol lotion has been very beneficial A spot of lupus on the leg was treated by injections of iodol solution into the surrounding subcutaneons tissue with the result of preventing the disease from spreading Iodol has also proved useful in fungating joint diseases Over 200 observations have been made, and neither erysipelas nor a diphtheritic condition of wounds has occurred —*Wiener medicinisches Blatt* —*Medical Times and Gazette*, December 5, 1885

THE APPLICATION OF NAPHTHOL TO SOME FORMS OF CUTANEOUS DISEASE —P SOMBRET (*These de Paris*) gives the following *resume* of the advantages possessed by naphthol in the treatment of some forms of skin disease

1 The preparations are odorless, and stain neither the skin nor clothing

2 In the use of naphthol, with the precautions advised by Kaposi, there are observed neither forms of intoxication (albuminuria, coloration of the urine) nor active inflammation of the skin

3 In scabies, naphthol is an excellent parasiticide and exercises a very beneficial effect upon the eruption due to the disease

4 In pediculosis the remedy is efficacious, and its use is free from danger and inconvenience

5 In psoriasis no satisfactory effect has been observed

6 In prurigo (of Hebra) naphthol causes the itching to disappear rapidly, and has beneficial effect upon the eruption It, nevertheless, does not possess a curative power in this disease greater than that possessed by other remedies —*Revue des Sciences Medicales*, July, 1885 *Amer Journ of the Med Sciences*, Oct , 1885

PELLETIERINE IN OCULO-MOTOR PARALYSIS —The Paris correspondent of the *British Medical Journal* writes that MR GALEZOWSKI recently read a paper before the Académie de Médecine on the action of pelletierine on the motor nerves of the eye His researches are based on the ocular disturbance which occurs in subjects who absorb pelletierine, they are affected with diplopia The observance of this fact induced M Galezowski to prescribe pelletierine when there is paralysis of the third and sixth pairs Iodide of potassium and blisters have failed where pelletierine has cured, the preparation used is syrup of pelletierine, 1 gramme per 120 parts of syrup From three to six doses were administered Unfortunately, this substance is excessively dear M Galezowski hopes to meet this difficulty by administering pelletierine in subcutaneous injections

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer s full name and address although not necessarily to be published All com munications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the under signed When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, JANUARY 9, 1886

THE STUDY OF MEDICINE AS A MEANS OF EDUCATION

Such is the title of a paper read before the American Academy of Medicine, at its recent meeting in New York City, by DR J LOWRY SIBBETT, of Carlisle, Pa The paper is not intended, as might at first be supposed, to show that the study of medicine is a means of education, but to show that the preliminary education (or the academic) for the study of medicine should be more thorough, and that this should be insisted upon by the medical colleges

It will be remembered that one of the requirements for membership in the American Academy of Medicine is that the applicant must be a graduate of an academic college, and unless we have misread the article now under consideration, this idea runs through it as an undercurrent, though the author does not express the view that graduates of academic colleges should be admitted to the medical college classes on the face of their diplomas in arts Nevertheless, it is directly implied that a man is unfitted for the study of medicine until he has completed a course (obtained a liberal education) in an academic college Completing a course in an academic college means only that the student has attended recitations or lectures on certain prescribed studies, he has, to quote our author, "studied mathematics, languages, rhetoric logic, mental and moral philosophy, and as much chemistry, geology and astronomy as is usually taught in respectable classical schools" We may assume, says our author, that the medical students from these schools "have spent five or six years in these several departments of useful study, that they have the mental discipline resulting from mathematical demonstrations repeated a thousand times, so important for the development of the reasoning faculties, that they have enjoyed the advantages of analysis and synthesis in the study of languages To all such we would say that they have laid a solid foundation upon which to add professional studies Their education has been in all directions, not merely one class of mental faculties, but all have been exercised and disciplined"

It will be observed that nothing is said in the above quotations as to the value of the sciences in training the mind, or mental faculties, which seems to imply that the sciences (three of which are mentioned) are to be studied solely for a general knowledge of certain facts, and because they are included in the college curriculum It should be remembered that we are now considering the academic "education" as preliminary to the study of medicine particularly Our author speaks of the importance of the study of mathematics for the development of the reasoning faculties, of the study of languages for analysis and synthesis, but does not even allude to the great value of the study of chemistry or geology for these purposes It must, however, be unhesitatingly asserted, that the study of chemistry (a branch, be it remembered, of surpassing importance for the understanding of medicine) *as it should be taught*, far surpasses the study of mathematics for training the reasoning faculties The modern mathematics is of but little value for this purpose, as was pointed out by Whewell more than forty years ago While mathematics is a purely deductive science, it is not yet the embodiment of pure deduction There is no appeal to observation, fact or induction It does not teach the student to, or *how to* observe, generalize, classify, or define by the examination of particular things, and when statements and arguments are confused and perplexed by verbiage, contortions, inversions and ellipses, its principles are absolutely useless In regard to the peculiar advantages of languages for elevating the qualities of synthesis and analysis it may be asserted that they do not exist Language should be studied chiefly as the tool of thought "The scientific student must no longer be handicapped by a linguistic (I will not say literary) burden" (Huxley) The languages now required by a scientific man are English, French, German, and to some and an increasing extent, Italian He does not need them except as tools, to find out what is going on in the scientific world But in order to learn them for this purpose he need not lumber up his memory with a mass of grammatical detail It should be distinctly understood that the literary man may use the results of science as so much literary material without troubling himself as to the methods by which they are arrived at, and that the converse is almost literally true of the scientific man as regards languages

That it should still be held, almost at the close of this century, when the natural sciences are the great powers of the world, and, after religion, the greatest power of modern civilization, when all the ancient and classical learning has failed to stay one human pain or to lift one ounce of human suffering, that the man who has not had the usual routine academic education is unfit for the study of medicine, is beyond conception The whole success of the physician must depend on the skill with which he can utilize the experimental sciences Should the millenial day come when everyone who elects to study medicine must go through a thorough preliminary course of training for it, it is to the experimental sciences that we must look for the foundation upon which to build a thoroughly competent physician And then will come the time when the original investigator will be a usual product, not an accident If the physician is to be scientific, he must have a scientific foundation, but as the case now stands, very few of the graduates of the strictly academic (and most of our academic schools are "classical" schools) of this country are properly prepared for the study of medicine And while we would not decry these schools, it must be said that the instruction given in the greater number of them is not that which fits the student for the study of science, or of a profession founded on science "An instructor in natural science has very much the same difficulty in training classical scholars to observe that a dancing master would have in teaching Chinese girls to waltz" (Cooke)

Medicine, which a century or so ago was ruled by authority and traditions, and might then have been classed with the literary professions, has now come to rest on a purely scientific basis This truth is not altered by the fact that medicine is not yet a pure or exact science And inasmuch as a distinction must be made between literary and scientific professions, an equal distinction should be made in the systems of education that lead up to these professions It is the object of the physician to unravel the mysteries of the healthy and diseased human frame, and to direct and aid the forces of nature for the cure and prevention of disease, and all the logic of the schoolmen, the ability to analyze and read all the Greek and Latin that has ever been written, and the facile demonstration of an epicycloidal curve or of the square described on the hypothenuse of a right angle triangle, are of infinitely small value for these ends as compared with a thorough knowledge of chemistry alone As there is a difference of subject-matter between a scientific and literary profession, there should and must necessarily be a difference in methods, spirit and aim of study

It has been held that Greek scholarship is impossible for the student who begins that study in college, and still less can we expect scientific scholarship when the study of science is first begun and too soon ended in the medical college A change from classical to scientific studies at the age of 18 or 20 has as many disadvantages as changing a profession at 50 However desirable it might be for a man to be both a classical and scientific scholar, he is the rare exception who can attain to this double culture, and as we can neither change the mental capacity nor alter the span of human life, we must be content to strive after that education, that culture, which will make us the most useful citizens If the school men contend that the classical scholar is more brilliant and ornamental, so be it So is the diamond more brilliant than coal, though both are carbon—as are classicists and scientists human And to attempt to make a scientific man in a classical retort is as absurd as to try to make coal a jewel by setting it in gold, or to run a steam engine by throwing diamonds into the furnace In a word, scientific culture is a suitable basis for a liberal education, and it will be recognized as such when the school men cease to dream in the moonlight of the past, and awake to the living present

A further and very important point is, that the recasting of the present academic course of education so as to include more science, and science properly taught, would tend to show the student his fitness for any particular profession much more clearly, and in this way it is extremely probable that very many who are not fitted by nature, inclination or education for the study of medicine would pursue other callings It is time that a halt was called to the absurd idea that, while every man may not be fitted for the study of a scientific profession, every one is adapted to the mould of the academic or classical college course Teachers of the experimental sciences declare that the students of the academic colleges form tread-mill habits which unfit them for the immediate study of science Prof Cooke, probably the best teacher of chemistry in this country, has written forcibly on this subject, and says "After that command of language which the necessities of civilized life imperatively require, there is no acquisition which we can give our children that will exert so important an influence on their material welfare as a knowledge of the laws of nature, under which they must live and to which they must conform," and he and all other teachers of science declare that this knowledge cannot be gained by recitations from books on "familiar science." There should be a course of preliminary study for the medical profession, and the medical colleges should require preliminary examinations, but the fact that a student may pass high in Greek, Latin, mathematics, logic, mental and moral philosophy, etc., does not form the least indication that he is fit to study medicine. Medicine is not a means of education, but an end requiring a certain line of education.

FORCIBLE INJECTIONS IN INTESTINAL OBSTRUCTION.

In the *American Journal of the Medical Sciences*, for January, 1886, DR. H. ILLOWAY, of Cincinnati, reports four cases of intestinal obstruction treated by the forcible injection of water, with three recoveries and one death. The injections were made with a powerful force pump, and repeated two, three or more times, as necessary. The post-mortem examination in the fatal case showed that a knuckle of the ileum had passed through a slit in the omentum and bent upon itself, and the intestinal structures about the incarcerated portion were somewhat softened, (death having taken place in a little more than a week after the symptoms set in.)

Dr. Illoway concludes from these cases that: 1. Enemata are superior to every other method of treatment. *a*. In the rapidity in which the cases are relieved. *b*. And in clearly indicating whether a surgical operation will be required. 2. They are entirely safe and free from all danger, and in no way prejudice the case should a surgical operation become necessary. It is due to Dr. Illoway to say that an operation was advised in the fatal case two days before death, and was refused. But for the length of time at which death ensued in this case, and the small amount of softening of the incarcerated portion of the intestine at this late date, we should be inclined to think that there may be an element of danger in forcible enemata in cases of some days' standing, namely, rupture of softened intestinal walls by the force of the injection and the pressure of the fluid. This fatal case must either be exceptional in regard to the degree of softening found, or we must think that the danger mentioned is comparatively slight until a longer time has elapsed. Of the two alternatives it must seem that the first should be held. It should be remembered, also, that the last injections were made on Tuesday, and that death took place on Friday, a sufficient time having elapsed for marked pathological alterations to take place. And it is entirely possible that had the forcible injections been made on Friday or the day before, the intestinal wall might have been ruptured.

However this may be, Dr. Illoway shows very conclusively that forcible injections are of great utility in promptly relieving some cases at least of one of the most unsatisfactory conditions with which the physician or surgeon has to deal. In the three favorably terminating cases the relief was permanent and almost immediate. In one of his cases an ordinary Davidson syringe had been tried without effect before the force-pump was used, from which it would seem that sufficient force cannot be obtained from an ordinary instrument. It is scarcely necessary to say that laparotomy should be performed if the force-pump proves ineffectual, with as little delay as possible. It will be remembered that in an editorial in THE JOURNAL of September 26, 1885, the treatment of intestinal obstruction was carefully discussed, and the following sentence quoted from the paper of Mr. Treves, read before the British Medical Association, at Cardiff: After twelve hours of treatment of acute intussusception with opium or belladonna and rest, it will be expedient to attempt reduction by means of insufflation or forcible enemata. This should be done in the first twenty-four hours, if possible, in order that laparotomy may be performed early.

COLLECTIVE INVESTIGATION OF DISEASE.

We have recently received the "Proposed Question paper No. 7," issued by the International Committee for Collective Investigation, which completes the series intended for collecting the facts concerning the geographical distribution and etiology of rickets, acute rheumatism, chorea, cancer, and urinary calculus. The memorandum and questions for the four first named of these diseases were very neatly arranged and printed for distribution in this country under the personal supervision of Dr. A. Jacobi, of New York, one of the American Members of the Committee, several months since, and it is earnestly desired that all who have received copies, or who may receive them soon, will carefully make the proper entry of all cases coming under their observation during the years 1885–6, and return them to either one of the American Members of the Committee early in January, 1887. The return at that time is necessary in order that the facts they contain may be properly collated for use in connection with those gathered in Europe, at the International Congress to be held in Washington in September of that year.

NINTH INTERNATIONAL MEDICAL CONGRESS —PROGRESS OF ORGANIZATION

Two or three of our exchanges still repeat the assertion that no material progress has yet been made in the Organization of the Congress This is far from being true On the contrary, the Preliminary Organization is at this time nearly complete *First*, notwithstanding all that has been said about *declinations*, a large number of those appointed and published by the Committee on Organization, as first constituted, still hold their places, and for every one who has declined two equally well qualified have cheerfully accepted positions *Second*, the only important vacancies now existing are in the office of President of the Sections of Physiology, Pathology, and Gynecology, the filling of which has been delayed by the Executive Committee for reasons we have stated in previous issues of this JOURNAL

Not only is the *personnel* of the Organization thus nearly complete, but the proper officers are actively engaged in arranging the work for each Section, and the Executive Committee will doubtless be ready to issue a supplementary circular containing a full programme, early in May next Already notices of contributions for several of the Sections have been received from prominent members of the profession in Great Britain, and indications favorable for a full European attendance are daily increasing

CHRONIC ULCERS —DR W P HOWE, of Charleston, Mo , writes to us saying, "that *lime* procured from barrels that have stood open for some time, sprinkled upon chronic ulcers will cure them when everything else, usually prescribed, fails Cleanse the ulcer with warm water and soap once every two days and fill the sore with lime no more bad odor, no more pain, and a remedy so cheap that it is within the reach of everyone

THE CHICAGO MEDICAL JOURNAL AND EXAMINER, for January, 1886, contains a connected and fair history of the origin and progress of the work for effecting the Preliminary Organization of the Ninth International Medical Congress If any desire such a connected history they can obtain it by applying to the Editor of that journal, 242 Wabash Avenue

THE DEATH OF DR J ORNE GREENE, of Lowell, Mass , is announced as having taken place on December 23 Dr Green was born in Malden, Mass , on May 14, 1799, and was therefore in his eighty-seventh year He was graduated from the Medical Department of Harvard in 1822

SOCIETY PROCEEDINGS

AMERICAN PUBLIC HEALTH ASSOCIATION

Thirteenth Annual Meeting, held at Washington, D C, December 8, 9 and 10, 1885

(*Continued from page 24*)

THURSDAY, DECEMBER 10—THIRD DAY

EVENING SESSION

The Association was called to order at eight o'clock by the PRESIDENT, DR JAMES S REEVES

DR J M TONER, of Washington, stated that not having been present during the discussion of Dr Chancellor's paper, he wished to say in regard to the prevalence of pulmonary diseases in Washington, that it was due in a great measure to the large number of colored people in the District who, on account of their careless mode of living, without sufficient shelter and proper food, are predisposed to consumption, and further that many of the deaths occurring here do not belong really to our population, as they occur among people already fatally affected, and only stopping here on their way to a more southern and genial climate

A special committee on

DISINFECTION OF RAGS,

to consider the resolutions offered on that subject, was appointed as follows Drs J Howard Taylor, of Philadelphia, A N Bell, of New York, Henry B Baker, of Michigan, C W Chancellor, of Maryland, and H B Horebeck, of South Carolina

THE LOMB PRIZE ESSAYS

DR C W CHANCELLOR, Chairman of the Committee on the Lomb Prize Essays, reported that the Committee had carefully examined the thirty six essays on "Healthy Homes and Foods for the Working Classes," and had not found that any of them fulfilled the requirements In view of the fact that the essay bearing the motto "He who secures a healthy home and healthy food for himself and family does not live in vain" is one of great merit, the Committee had decided to award to it the second prize

The Secretary was then directed by the President to open the sealed envelope corresponding to the motto, and it was found that the author was Prof Victor C Vaughan, of Ann Arbor, Michigan

HON ERASTUS BROOKS, Chairman of the special Committee to award the prizes for the essays on

THE SANITARY CONDITIONS AND NECESSITIES OF SCHOOL HOUSES AND SCHOOL LIFE,

read the report of the Committee The Committee appointed by the American Public Health Association on "The Sanitary Conditions and Necessities of School Houses and School Life," and to whom the Secretary has forwarded twenty papers, covering from twenty-two to one hundred and sixty-five pages, report

1 That they have given to the papers the attention due to the importance of the subjects discussed All of them present subjects belonging to the proper

care and character of common and private schools—to building, their management indoors and out of doors, and especially to school hygiene Everything relating to physical education and general health is presented, and under these and other subdivisions of subjects all that relate to scholars at school and scholars at their homes, to every form of possible school disease, to proper hours or times of study, to school age, to light, and diet and clothing, to heat and cold, sleep and needed recreation, to proper kinds and times and places of exercise, of general eye sight and all diseases of the eyes, to baths, bathing, and all distempers and maladies to which children at school are exposed, to school architecture, accompanied with valuable illustrations of the best styles of building, to school grounds as to places, grading, and finish with reference to the plans known as the system or plans of Mr T M Clark, of Boston, the Sargent system of Cambridge the Briggs plans of Connecticut, the Swedish system of Lying, and almost every system founded upon knowledge of the human body Bodily punishment is opposed in all the papers, except in very rare or extreme cases, and one reason given is that lethargy, idleness and disobedience may come, and do often come, from evils in the schools where severe rules are the near or remote causes of the evils complained of So likewise, school competitions are censured as exciting the nervous system too much, and often arousing jealousies and ambitions which result in no practical good to those who are pitted against each other School exhibitions in the heat of summer are also condemned Where competitions and exhibitions are desirable, the exhibitions and recitations should not be in public No one school, it is held, should exceed 600 pupils, and where, as in the schools of New York City, out of 2,300 very young pupils examined only 122 had at best perfect eyesight, it becomes too apparent that the crowded condition of schools is largely responsible for the increasing defective eye sight in young persons All the more is this apparent and suggestive when it is known that myopia becomes a progressive disease Where careful examinations have been made, it is shown that, starting from nothing, from 60 to 70 per cent of the scholars have in one form or another, impaired eye sight, and that from 10 to 25 and even 30 per cent in some schools have impaired hearing

2 In reading these several essays we are impressed with the fact that those who most need the information given in them are from prejudices, habits of life, ignorance and other reasons, the least likely to be benefited by the facts and statements they contain But this truth only shows the constant necessity of this form of education, and the duty of those who are blessed with means, experience and knowledge of improving every opportunity to impart to others, and in every practical manner, the result of their own study and investigation In this spirit Mr Henry Lomb, of Rochester, in the spirit of the largest generosity, has made the American Public Health Association the vehicle or instrument of his several benefactions for the health, comfort and instruction of the people of the State and Nation The act is worthy of all honor, and the example deserves the thanks of the people and the congratulations of wise and good citizens of the whole country

3 If children are forced to go to school by the State, the State owes them instruction in what belongs to the mind, and if this is admitted, physiology and anatomy ought to be taught in all schools, as the recent statute requires in the State of New York In a very important sense the body and mind are one, and especially are they a unit in about all that relates to health Physical and mental education should receive equal attention

4 The limited time due to any one study, and the proper directions of all studies, according to age and bodily or mental conditions, present subjects apart from overwork in the school room The suspension or continuance of studies in the interest of education also presents this subject wholly apart from what is called too much study or overwork in the school room

5 Among the specialties named and urged in some of these papers are the appointment of regular medical examinations both of teachers and scholars, the examiners to be qualified physicians or inspectors, and these persons to know that the teachers have in all respects intellectual fitness for their tasks as teachers Such appointments would direct and control all that belongs to school hygiene, all that belongs to vision, the source of so many evils to pupils under the present neglected systems, of what belongs to light, air, bodily positions, time and place of lessons, and of what is due from teachers in regard to physical and scientific development both of mind and body These medical examinations, it is believed, would result in the double good of saving life and promoting health, of separating those afflicted with contagious and other diseases from those who are free from them It is urged that for these reasons there should be some annex for the feeble in body and mind If the State is ready to enforce the separation of dumb animals—the healthy from the diseased—it is urged that the State should be at least quite as ready to separate school children whose presence one with another endangers the health of the pupil, of the family, and of the whole community If, in a sentence, a quarantine is required for the cattle and hogs of the country, a like quarantine should be provided for the little ones who already are the children of the State, and if alive hereafter to be the fathers and mothers of the country

6 It is also urged that teachers should be licensed to teach and their qualities proved before they enter upon their work At present politics, prejudice, sects in religion and prejudices in party, with ignorant men to select and decide in the choice of teachers, too often and most often are the motives and purposes of the successful choice If anywhere in the public service an intelligent and honest civil service is needed it is in the selection of teachers in our common schools If discretion, wisdom and righteousness are required upon the Bench, at the bar, in the general business of the State for the people at large, or in the teachers from desks dedicated to God, these qualities are surely none the less re-

quired in the great work of teaching the millions of children in a country whose population ere long, judging from the past and present, will number nearly one hundred millions of people

7 One of the papers, chiefly for reasons of freedom in fitting places of recreation, favors the co education of the sexes, between the ages of beginning study (which varies from 5 to 8 years) and the age of 14, excepting for children under 5 and in attendance upon kindergarten schools, where the hands and the eyes are made useful almost by observation alone

The study of music, especially where the fingers are used, is urged for strengthening the hands, as the voice may be used for strengthening the lungs As a system, also, the Swedish, which is denominated educational, æsthetic, military and medical, is the oldest, and with many the most approved, for the reason that under one of these heads is taught the best kind of free exercise, under the second is taught what belongs to the expression of ideas and sentiments by means of positions and movements and what may be called grace of manner The use of the sword, foil and bayonet belong to the third classification, and the law of Congress of 1862 requires instruction in all these weapons, and in all that belongs to early and practical lessons in military service Under the fourth, or medical head, instruction is enforced in what belongs to the treatment and cure of chronic diseases and deformities, through the use or agency of free movements, with or without assistance, resistance by special apparatus, or by manipulation These four exercises are intended for the harmonious development of the body, and secure the end desired While this system is generally approved, it is proper to say that it is also criticised and opposed as wanting in spirit and energy from the absence of apparatus and the absence of motive to complete a definite object

8 As a substitute for the long time devoted to study in school, it is suggested that the full school hours be divided between books and work, and some kind of useful mechanical work, if possible In the general order of proper school education we suggest

First, A sanitary education for the body and the mind

Secondly, Mechanical instruction in the interest both of mind and body

Thirdly, And in this order, appropriate school studies from books

While this is reversing the common methods of school education the beginning, at least, here suggested, is in the right direction, and should be insisted upon by the State and by all in authority having charge of our public school system Your Committee, in view of the important subjects presented to them, venture to suggest and to recommend these conclusions

First In regard to teachers, and in the interest of the health of children entrusted to their care, that other knowledge than teaching the ordinary lessons of the school room is desirable

Secondly That the highest object of life, next to moral conduct, is the health of the old and the young, and that the chances of health in middle life and old age are almost impossible where a wise sanitary foundation has not been established in the period of time usually devoted to school life

Thirdly That the examination of the large number of papers submitted to the Committee proves the necessity of a much greater interest in the sanitary condition of school houses, and of a much larger common interest in school life In the use of the eyes from various causes, fully enumerated in papers before the Committee, it is shown that the disease known as myopia has increased from nothing to 50, 60 and 70 per cent, and in parts of Germany to 79 per cent That schools very often are but so many factors of near sightedness, that parents and their homes share in the responsibility and cause of this great grievance in common with teachers and school houses This is also true, though not to the same extent, in the bad use of the ears, in defective light, in foul air and bad ventilation These great defects in school rooms and homes, in teachers and pupils, are all the time progressive in parents, homes, teachers, and pupils, from class to class, and from year to year

Fourthly That in not knowing what was necessary to secure the health of the present generation, our honored ancestors, in a large sense, became responsible for the ignorance, deficiencies and diseases of the present, and the present generation will in turn, by persistent neglect and ignorance, become responsible for like consequences in the future We all well enough know and understand what inheritance means when it results in personal good fortune or family estates, and we ought to know what inheritance means when the effect is to impart vice, disease and death upon those who are to succeed us Fortunately for the State and country, the American Public Health Association is established to teach, among other lessons, the necessity and value of hygiene for the young as well as the old, especially in all school life, as well as among adults in the homes and workshops of the country

The Committee did not consider any one of the papers presented as worthy of the first prize The second was awarded to Dr F Lincoln, of Boston

(*To be concluded*)

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, December 3d, 1885

THE PRESIDENT, B F BAER, M D, IN THE CHAIR

DR ELLIOTT RICHARDSON read a paper on

SOME CAUSES OF TARDY FIRST STAGES OF LABOR, AND THEIR TREATMENT

(See p 32)

DR PARVIN remarked that the subject of Dr Richardson's paper was one of great practical importance, and his presentation of it has been very interesting Coming to its ultimate analysis, a case of labor, tedious in either the first or in the second stage shows a want of proper relation between power and resistance, the former for an unusually long time is unable to overcome the latter Manifestly, if this be so, we have naturally suggested to us two plans of treatment either increase the power or lessen the resistance These principles are plain, but the selection and the application often present serious difficulties Severe suffering in the first stage of labor certainly should be relieved, for this suffering exhausts, and it does not follow that the power of a pain is to be measured by the intensity of suffering it produces, and therefore "painful" pains are an undoubted evil As to the means for their relief when they are associated, as they usually are, with very slow dilatation, many would prefer chloral injected into the rectum to morphia internally, or an æsthetic inhalation

In regard to the process of dilatation of the os, it is possible Dr Richardson has attached too much importance to the bag of waters as a dilating means, that is the mere passive process, but there is an active process—that by which the circular fibres of the uterus are, by the action of the longitudinal fibres, retracted over the bag of waters, or the presenting part, if the former be ruptured, it is not so much descent of the presenting part which occurs as it is the ascent of the expanded cervix, for in primiparæ, at least, the head is usually, at the beginning of labor, in the pelvic cavity, and it can go no farther until the dilated os has passed more or less completely above it It may be that resistance being lessened by chloral, or by opium, the power is sufficient to overcome it, but if it be not, probably the continuous current of electricity will be the most efficient means to increase the uterine force In this connection I may refer to the statements of Bayer, in his recent elaborate monograph entitled *Morphologie der Geburmutter* In many cases of labor where delay occurs in the first stage, it is not the os uteri that is at fault, the obstacle is higher up, and according to Bayer, the anatomical condition of this "*Stricturirung*" is the deficient unfolding of the cervix In such condition there may be a spastic ring like stricture or a spastic partial stricture The first form is especially liable to occur in a narrow pelvis Bayer recommends warm fomentations, warm vaginal irrigation, a whole bath, eventually narcotics, especially opium by rectal injection, but he strongly insists upon the continuous current as the true natural method of treatment, on the one hand relieving cramp, and on the other exciting labor, activity thus removing the primary failure, the deficient unfolding of the cervix

One word as to the occurrence of malarial poisoning in the puerperal woman I think it comparatively very rare Certainly this is the conclusion which I must draw from my own experience in private and in hospital practice In two terms of service at the Philadelphia Hospital I have seen probably forty cases of puerperal septicæmia, and only one case of malarial fever When one sees a febrile attack in a woman after labor, he is disposed to take the most favorable view of the case and may attribute, at first at least, the disease to malaria when really it is caused by septicæmia, losing precious time, and may be led to give a favorable when a doubtful prognosis should be indicated

Dr W W Jaggard, of Chicago, upon invitation from the Chair, remarked that morphia hypodermically had been extensively tried in the first stage of labor at Vienna and Paris, and had been discarded, in the former city about six years ago, and in the latter more recently It had been found to affect the fœtus unfavorably One fourth of a grain administered every four hours for some time would be attended with grave elements of prognosis The possibility of a live fœtus remaining in the uterus forty five days after the escape of the amniotic fluid he considered more than doubtful Cysts sometimes form between the amnion and chorion, and the bursting of one of these may give rise to the idea of the escape of the amniotic fluid Hydrorrhœa gravidarum, a condition dependant on a diseased condition of the decidua, is a more frequent phenomena, and will explain many of the cases of supposed rupture of the amniotic sac

Dr W T Taylor remarked that the causes of delay in the first stage of labor were numerous For the relaxation of rigid os he would prefer hydrate of chloral twenty grains, one eighth of a grain of sulphate of morphia every two hours has a soothing and beneficial effect, giving rest and sleep between the pains When the edge of the cervix is thin and wiry, the morphia is especially called for He has experienced delay from dropsy of the amnion After a delay of six or eight hours he has ruptured the membranes and after the escape of an enormous quantity of fluid, rapid and effectual contractions supervened Another cause of delay is posterior position of the occiput, if a change of position can be effected labor will progress more rapidly He has observed premature escape of the liquor amnii from ten days to two weeks before labor, and yet everything went on normally He has met with one case of malarial poisoning In the eighth month intense pains were experienced, but there was no effect on the os He gave five grains of quinine and two grains of potassium bromide, and in a few hours the pain was relieved

Dr Longaker stated that according to his experience morphia should be used gradually In some cases it has caused still births In a recent case the first stage of labor had lasted twenty-four hours and the os was but one inch in diameter, four doses of sulphate of morphine, one fourth of a grain each, were, by mistake of the nurse, given at intervals of fifteen minutes dilatation and descent of the child quickly followed As Dr Parvin has stated, the early stage of labor consists mainly of retraction of the cervix, and early rupture of the membranes as a trouble is overrated Undeveloped pelves of generally small diameter cause less delay in first labor than in later ones, because in the earlier labors the abdominal muscles are strong to assist the uterine contractions, in later labors, besides having less contractile powers, their laxity allows the body of the child to fall forward, and the vertex presents less favorably at the superior strait

Dr Trautmann said that in one case under his care recently he found a well dilated os uteri and a free escape of waters, the pains ceased, ergot was given without any effect, and as the forceps were strenuously objected to he was obliged to do nothing. After an interval of four weeks labor came on naturally and a living child was delivered. The unaccountable facts in this case are the widely dilated os, the escape of the waters and a living child four weeks later.

DR. W. S. STEWART said that sodium bromide is good to prevent premature labor, five drachms may be divided into ten doses and one given every three hours. He has observed in one patient an apparent rupture of the membranes at five months, the fluid coming away with a constant drip, later the flow was greatest at night, this condition lasted for six weeks, when it terminated in premature labor, the fœtus was living. The fluid which came away was examined and seemed to be amniotic. He also has observed retardation of labor from falling forward of the fœtus in relaxed abdomen, when such a patient is placed on her back labor goes on rapidly.

DR. CHAS. M. WILSON remarked that hydrorrhœa gravidarum is more frequent than is supposed, and is mistaken for premature discharge of the amniotic fluid. Rigidity of the os uteri is most quickly relieved by inhalations of chloroform. He has found its action more satisfactory than that of chloral and sodium bromide or ether, and safer than morphia. Postural treatment of early stages of labor is of the greatest importance, he would place the patient on the floor on her knees or haunches holding by the back of a chair or post is often useful, as it assists in fixing the respiratory muscles. He has not had good results from the local use of belladonna.

DR. KEATING spoke of some experiments he had been making. The patient was first to practice Dr. Bonwill's method of inducing partial anæsthesia by rapid long breathing for a time, and then to hold the breath as long as possible. This method was found to bring on rapid and efficient pains in the multiparæ with pendulous abdomen.

DR. BAER remarked that take it all in all, morphia hypodermically is the most valuable remedy we possess for the relief of pain and rigidity of the cervix during the first stage of labor. Of course it must be used within proper limits.

DR. RICHARDSON, in closing the discussion, said that his paper was not intended to be comprehensive. His use of morphia extended only to doses of one-sixth of a grain every four hours, by the mouth, and not hypodermically. In the patient whose history he had given, intermittent fever was developed later on, and he has not the slightest doubt of malarial poisoning being the cause of the untoward symptoms during and after labor, there was no fever, no rise of temperature, and therefore septicæmia is excluded. There can be no question as to the retraction of the cervix when the head is already in the pelvis, but when the head fits tightly into the superior strait and the cervix is jammed by it, the pressure upon the upper sac is greater than upon the lower, cut off from it by the head. Chloroform is more efficient than any other agent he had used, but it was not always to be preferred.

(*To be concluded.*)

CHICAGO GYNAECOLOGICAL SOCIETY

Stated Meeting, Friday Evening, Nov. 27, 1885.

THE PRESIDENT, DANIEL T. NELSON, M.D.,
IN THE CHAIR.

DR. JOHN BARTLETT read a paper entitled

REMARKS ON THE TOXIC PROPERTIES OF SASSAFRAS.

Sassafras was discovered in Florida by the Spaniards and named by the French in 1562. It was used by them in association with other native herbs as a remedy for malarial diseases. Though occasionally prescribed in combination in rheumatism and syphilis, and regarded as possessing diuretic, diaphoretic and tonic properties, it has fallen into disuse. So that by referring to such books as were within my reach, namely, Motherby, 1785, Parr, 1809, Eberle, Trousseau, Mitchell, Warring, Stillé, Ringer, Bartholow, Phillips, Wood, Fluckeger, Farquharson, Brunton, Wormly and Blyth, and the U. S. Dispensatory, National Dispensatory, Christison's and King's Dispensatories, I can find no mention of the possession by sassafras of any decided therapeutical or noxious power.

More than twenty years ago Dr. Thomas, of Tennessee, stated that sassafras was an antidote to henbane and tobacco, and later, in 1870, Dr. Lyle, of Indiana, declared that he had used *the oil of sassafras* in a case of stramonium poisoning with the happiest results. Dr. Lyle affirmed that sassafras had power to destroy all insect life, and was an effectual antidote to the venom of the copperhead snake. In 1883 we find that Dr. Hinton claimed that sassafras tea was almost a specific for the rash produced by poison oak. Recently paragraphs have appeared in the medical journals, in which it is stated that sassafras is not the innocent agent that it has been supposed to be, but that in reality it has violent toxic properties. This statement is made upon the authority of Dr. Charles I. Hill, from whose paper read before the 86th session of the Medical and Chirurgical Faculty of the State of Maryland, in April, 1884, the following report is extracted.

"A case of poisoning by the oil of sassafras, that once came within my knowledge, proved that it possesses far more active properties than is generally supposed, and I have been able to demonstrate by experiment on the lower animals that, instead of being a harmless, inert drug, it is a strong nervous sedative, anodyne and soporific, and in over doses, a dangerous narcotic poison. A policeman, attracted by the sound of a falling window and other suspicious noises proceeding from a gentleman's office, entered the room to ascertain the cause. He found no one present but a boy, who was lying unconscious on the floor. He took him at once to the station house, where I saw him shortly afterward. The officers had already diagnosed his case as one of opium-poisoning, and were vigorously striving to keep him awake by walking, flogging and such other means as are usually resorted to in these emergencies. His stupor was profound and he no longer made an attempt to walk, but was literally dragged about in their efforts to revive him He spoke occasionally, but only to beg them to allow him to sleep He was in a condition of great relaxation, skin covered with a profuse perspiration, countenance pallid, pulse rapid, but weak and thready His pupils were *normal*, and there was a strong odor of sassafras in his breath As quickly as possible an emetic was administered, which produced a copious emesis, redolent with the odor of sassafras, with drops of the undissolved oil floating in the liquid This was followed by free draughts of warm water, until only a faint odor of sassafras was discoverable The vomiting relieved him and he was soon restored to consciousness He felt no discomfort except a sense of weakness and exhaustion, and was soon able to give the following account of himself His employer having gone home, he was preparing to close up the office, when he espied a bottle of the oil of sassafras which had been left on the desk Remembering that sassafras had been recommended for the removal of an eruption that disfigured his face, he thought this a good opportunity for giving it a trial, and turning up the bottle—to use his own language—he took two large swallows of its contents In a few minutes he began to feel very *stiff*, as he expressed it, but proceeded to close up the shutters preparatory to leaving for home He raised the window for this purpose, but had not strength to hold it in this position, and it dropped from his grasp, and at the same time he fell to the floor unconscious This suggestive case led me to make numerous experiments on the lower animals with very interesting results Ten drops of the oil were injected hypodermically under the skin of a mouse The animal quickly succumbed and died convulsed By repeated experiments I was able so to regulate the dose as to get the characteristic effects of the drug without causing the speedy death of the mouse A glass rod was dipped into the oil and held in front of the mouse, and he seized it with his mouth This was repeated at intervals of a few minutes, until a sufficient quantity was taken to produce the desired effect The first symptoms observed when a small quantity was thus taken, was a slight convulsive movement, which was repeated at intervals of a few seconds, and agitated the animal's body very much like a severe hiccough This gradually increased in severity, the movements became more unsteady, the body more arched, and the limbs so stiff that the mouse stood on tiptoe It was noted that the one idea of escaping from the trap still predominated over all else, as he continued to climb up on the bars of the cage, only to fall on his side or back at each convulsion, until no longer able to rise

I have repeated these experiments many times with great uniformity of result Sometimes they would dance about for half an hour, with a peculiar convulsive movement that would jerk the head and front feet from the table Again they would fall on their side with each convulsion and regain their feet immediately, only to repeat the same movement With cats and dogs the result was somewhat different A drachm under the skin of a cat caused such profound insensibility that she was supposed to be dead, and thrown away, but it seems that only one of the reputed nine lives of the animal had been reached, as the next day she turned up none the worse for the experiment A full grown dog was paralyzed in his hind legs by a similar dose hypodermically over the loins, but it recovered Many other experiments might be adduced, but I will not trespass on your time There is one other property possessed by this drug that is worthy of mention—it is a germicide and anti ferment of no mean quality In some clumsy experiments made by myself I have estimated its potency in this field as about one half the strength of carbolic acid It has long been used as a domestic remedy for the destruction of lice and other vermin

For some years past I have had an intention of bringing before the profession reasons, rather feeble it must be admitted, for the supposition that the medicine under consideration has marked potency in a direction, so far as I know, not suspected by medical men Up to this time the declaration on the part of standard writers that sassafras is a remedy of questionable power, and the fact that it is hawked about the streets and used freely as a tea all over the country, have caused me to refrain from bringing before a scientific body my limited experience presently to be detailed But the recent declaration that this drug possesses toxic properties may justify me in making the following statement Years ago I was called to a woman among the poorer classes, of good intelligence and education, who was having a miscarriage Upon my inquiring as to the cause of the mishap, with a prefatory reference to her poverty and already large family, she stated that she had induced the abortion herself—that she had done so on previous occasions She had employed, she said, "what other women used," sassafras tea She was surprised that I did not know of the property of sassafras as an oxytoxic She spoke as if all her friends knew how to use it as an ecbolic, and she evidently looked upon it as a specific Tea, she said, made from four or five pieces of the root, as large as the thumb and twice as long, would produce abortive effect

A year or two later I was called to a woman two months pregnant For several days she had had symptoms of miscarriage of so pronounced a character that arrest of the process was doubtful I found the patient very anxious to have a child, she disclaimed the intention of inducing abortion, and to all my inquiries as to a possible cause of the hæmorrhage, she gave answers which left me no further question except this "Have you been drinking sassafras tea?" Surprised, she replied that for a week past she had used it at breakfast and supper The proper remedies for her condition were prescribed, the possibly offending tea left off, and in twenty four hours all was quiet *in utero*

Farther than this my experience with sassafras as a possible abortifacient does not extend, possibly some one present can supplement my remarks with knowledge or experience of his own A study of the toxic effects of sassafras as reported by Dr Hill, and here suggested, would seem to show a triple resemblance to three familiar articles, opium, strychnine and ergot. In its action as a narcotic and sudorific it resembles opium. In its property of inducing tetanic and clonic spasms, followed by paralysis, it is similar to strychnine. In its power hinted at of exciting the uterus, it may be linked to ergot. It may be of interest here to call attention to the fact that the first reference to the use of ergot as an ecbolic was made by Stearns in 1807, whereas it had been used by midwives certainly as early as 1688, and probably very much earlier.

Dr. James H. Etheridge, referred to the action of the oil of sassafras on the motor centres in the spinal cord, supplying the uterus.

Dr. Edward Warren Sawyer said in New England sassafras was a popular emmenagogue. Mothers were in the habit of giving decoctions of sassafras and tansy to their daughters in case of delayed or suppressed menstruation. Many of the essential oils produced the effects ascribed to sassafras by Dr. Bartlett. In the South, oil of sassafras was a popular remedy for uterine disease.

The President inquired as to the chemical constitution of the volatile oils?

Dr. H. P. Merriman replied that many of the volatile oils were identical in chemical relations, but differed in physical properties. Such oils were *isomerides*. The essential oil of lemons, of bergamot, neroli, lavender, pepper, camomile, caraway, clover, etc., are isomerides of the oil of turpentine.

Oil of sassafras was an isomeride, whether or no of the turpentine group, he could not say. Oil of turpentine was a hydrocarbon, possessing the formula $C_{10}H_{16}$.

Dr. H. T. Byford was of the opinion that the oil of sassafras exerted its influence locally upon the alimentary canal and pelvic viscera, through which it was excreted, rather than upon the uterine nervous centres, as in the case of ergot. This would account for its popularity as an emmenagogue, mentioned by Dr. Sawyer. He had recently given one drop, combined with one-half grain of piperin, every three hours, for two weeks, in case of typhoid diarrhœa. Slight strangury, disappearing with the discontinuance of the drugs, was produced.

(*To be concluded.*)

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT.)

Mortality from Zymotic Diseases in England—Overcrowding among Workmen—Nitrite of Amyl in Opium Poisoning—An Attack on Pasteur—A New Lead Battery.

During the past ten years in England, there appears, from the decennial report just issued by Dr. William Ogle, of the statistical department of the General Registry Office, to have been a most satisfactory falling off of the mortality due to the various zymotic diseases, with the exception that whooping-cough has remained stationary, and that from small-pox a large increase of from 163 per million living to 236 per million. This increase is due to the very serious outbreak which marked the two first years of the decennium, 1871 and 1872, and which led to the appointment of compulsory vaccination officers by boards of guardians, and consequently to a more stringent enforcement of infant vaccination. If, however, the statistics of small-pox are given by what Dr. Ogle calls natural periods, that is, by periods which coincide with successive improvements in the enforcement of the vaccination acts, it becomes manifest that there has been a gradual and notable decline in the mortality from the disease. It may be further shown that this decline is due to diminished mortality amongst children of tender age, while the mortality at later periods of life has actually increased, and has increased in proportion to the age attained. The explanation seems to be that when regarded by the light of long experience, vaccination confers an immunity from small-pox which is as real as, but less permanent than, that conferred by small-pox itself, so that the protective influence of the former requires to be renewed from time to time. This precisely coincides with the results which have been recently set forth by the German Commission appointed to inquire into the subject.

Taking the other principal zymotic diseases, it pears that the annual deaths per million living, from scarlet fever, have fallen from 972 to 716, those from fever, including typhus, enteric and ill defined forms of continued fever, from 885 to 484, those from diarrhœa, from 1076 to 935, those from phthisis, from 2475 to 2116, and those from diphtheria, from 185 to 121. Under the two last headings, however, there is some uncertainty as to how far the improvement may be only apparent and due to more exact statement of the causes of death upon the medical certificates. Diphtheria is probably less liable than formerly to be confounded with other forms of fatal croupous affections, and phthisis is less liable to be confounded with other forms of diseases of the respiratory organs, under which latter heading the fatality has increased. The report contains much valuable information with regard to the mortality produced by many other diseases. It may be mentioned that the deaths of women in childbirth have remained practically stationary for the last thirty years, and that they amount to something less than five for every thousand children born living.

The total death rate during the ten years, 1871 to 1880, is 21.27 per thousand, varying in different localities from 14.13 and 33.57 per thousand. Among the 647 districts into which England and Wales are divided, there were eight in which the mean annual rate was under 15 per 1000, 31 more in which it was under 16, and again, 62 others in which it did not exceed 17. These 101 districts are described as the "selected healthy districts," and form a useful standard for comparison. In 326 other districts, the mean annual death rate was between 17 and 20, in 190 it was from 20 to 25, in 23 from 25 to 30, and in the remaining two it exceeded this high figure. Dr. Ogle attributed these differences partly to difference in the quality of the sanitary administration, partly to the different density of population, and partly to unwholesome occupations

Mr Middlewick, in a paper read before the Association of Public Sanitary Inspectors, took up among other points, the subject of overcrowding as the result of a necessity for the workman to live near his work and urged the remedy which has been so much discussed, of the extension of living ground out of London by the installation of a regular system of workmen's trains Previous evidence in regard to this point shows that it is very doubtful whether this system would be accepted by the mass of artisans, or whether it could be made to pay Mr Middlewick also attacked the "model dwelling" system, on the ground that the rents were too high in such buildings and that there was very little recreation ground in connection with them in comparison with the number of children who lived in them The latter statement is certainly true, but it is connected with the former inextricably The aim of most people who promote model dwellings is to make them remunerative at as low rents as possible If more ground is taken, rents would be proportionately higher, unless the buildings are to become a mere charity establishment for finding people homes at rents convenient to their means

The following case, in which nitrite of amyl was used as an antidote to opium, will doubtless be considered sufficiently important to lead others to try the same treatment in desperate cases of opium poisoning The case recorded is of a person who took two ounces of laudanum, and showed every symptom of opium poisoning—coma, small pulse, feeble and infrequent respiration (six to the minute), coldness and cyanosis Belladonna proved useless, while inhalation of nitrite of amyl immediately improved and ultimately restored the patient

M Henry Rochefort is never happy for a long time, if some one, or some thing, is not attacked in his organ This paper has made itself remarkable by the acerbity with which it has attacked M Pasteur, whose equanimity, however, is not disturbed A week or so ago it printed a sensational paragraph concerning a tragic incident which it affirmed had just occurred in Paris. A child six years of age who had been bitten by a mad dog was placed by her parents under M Pasteur's care, and, as the paper asserted, had lost her life in consequence of his treatment As a matter of course, the absolute correctness of the story was vouched for, defying M Pasteur to contradict it It turns out, however, that it omitted to state the real truth, which very materially alters the circumstances of the case related The little girl placed under M Pasteur's care met with the accident which proved fatal six weeks before he was consulted The dreaded malady—hydrophobia—had consequently time to develop itself, and the case, evidently, cannot be accepted as furnishing a proof against the value of the distinguished savant's theories

A new medical battery has come out, in which the authors use lead in place of zinc, as the positive element, which is easily reducible from most of its compounds As the negative element, they employ a conductor, preferably of lead or carbon, coated or kept in contact with a layer of peroxide of lead

The honor of knighthood has been conferred on Dr James Sawyer, the well known physician of Birmingham

G O M

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

The Indications for Laparotomy in Penetrating Stab and Shot Wounds of the Abdomen—Vaginal and Vulvar Enterocele

The last meeting of the Surgical Section of the Academy of Medicine, held December 14, was one of unusual interest The subject for discussion was, *The Indications for Laparotomy in Penetrating Stab and Shot Wounds of the Abdomen*, and several prominent surgeons and gynecologists took part in the debate It was opened by Dr Joseph D Bryant, who went over the ground more carefully and systematically than any of the other speakers Taking for his text the dictum 'Laparotomy should be performed in all cases and immediately after the accident," he said that he who unconditionally asserts that any operation or method of procedure should be performed in all cases, even though it be a measure accepted by the profession generally, takes a position which requires, in justice to the profession and the patient, that all operators should be competent and well equipped for its performance Especially was conservatism necessary in the advocacy of an operation the propriety of which, as yet, is spoken of by many with doubt commingled with dread Few indeed were the hospitals in the city of New York which could "immediately after the accident" offer the recognized facilities necessary to dispatch and cleanliness in operating, not to mention other circumstances bearing on the success of the procedure How much less properly prepared for the performance of laparotomy would the unfortunate patient find the general mass of the profession?

He thought it well to divide the dictum referred to into three interrogatories, and the first was, *Should laparotomy be performed in any case?* It could not be denied that laparotomy in connection with various abdominal growths was a fully established operation, and there was no proof, so far as he knew, that the peritoneum of the male was not as tolerant of manipulations as that of the female Again, the success of Billroth and many others in operations upon the stomach pylorus, kidneys, etc , fully showed that intolerance of the peritoneum could not be considered as a rational objection to laparotomy, while these operations showed also that neither could the length of time required nor the great extent of raw surfaces resulting in many instances be urged as objections

Among the practical elements which at the present enter into a case of laparotomy for penetrating wounds, but which do not exist, or at all events exert an equal force, in laparotomy for other common causes, he mentioned the following (1) *A doubt* *whether the abdominal viscera were injured.* Although this doubt, at best, could exert but little influence, it could at once be set at rest by an exploratory incision. (2) *Existing shock.* He believed it to be an established fact that when severe shock follows immediately after the injury it is due, in the great majority of instances, to loss of blood, and if this were the case, the indication was to check the hæmorrhage at once. An exploratory incision would decide this question also. (3) *Unfavorable surroundings of the patient.* It was impossible to avoid such circumstances entirely, but their dangers could be greatly lessened by caution in moving the patient, by taking at once to a suitable hospital, instead of his own home, and by increased familiarity on the part of the profession with all the details pertaining to the proper performance of laparotomy. (4) *Unskilled operators.* This element could be altogether overcome if the members of the profession would only devote a reasonable amount of attention to this important subject. (5) *Greater exposure of the abdominal cavity and its contents.* (6) *Existence of hæmorrhage.* The vessels of the omentum and of the intestines, especially the former, bled with unusual pertinacity, and the suspicion of the existence of much intra-abdominal hæmorrhage was enough to indicate the making at least of an exploratory incision. (7) *Extravasation of intestinal contents.* This was the strongest of all the indications for laparotomy, which offered, indeed, the only chance of recovery, and here again, when such a condition was simply suspected, the exploratory incision was called for to determine the question. (8) *The greater difficulty of cleansing the abdominal cavity.* If blood and intestinal contents had been generally diffused, the cleansing of the abdominal cavity was more tedious and difficult, and also of greater importance, than in laparotomy for other causes, but the thorough performance of this duty, at least so far as the intestinal contents were concerned, appeared to be the only means of saving the patient's life. As to blood, no one could tell the amount that might remain, and yet recovery take place. In Dr. Bryant's opinion, laparotomy was a justifiable operation in penetrating abdominal wounds, but it was not to be attempted, even in so called favorable cases, unless the operator could avail himself of many of the recognized means of procedure and was sufficiently familiar with its steps to do the work with accuracy and dispatch.

Leaving the second interrogatory, *Should laparotomy be performed in all cases?* to be discussed by others, he passed on to the third, *When contemplated, should it be done immediately after the accident?* Assuming all things to be equal, he thought that it should be done at once, or at least as soon as the necessary preparations could be made. In most cases there should first be an exploratory incision, and then this should be followed, if the condition of affairs warranted it, by the actual laparotomy. In the former the incision was made in the median line, so situated and of sufficient length to expose to view the probable seat of the internal injury. The surgeon could then, in the great majority of instances, determine if penetration of a viscus had taken place, and if hæmorrhage or intestinal extravasation existed. If the patient were in danger from immediate hæmorrhage, the blood could be seen in the abdominal cavity through the opening. In conclusion, Dr. Bryant asked, *Does the exploratory incision expose the patient to unusual dangers?* The large number of successful laparotomies both in this country and abroad seemed to him to answer this question in the negative, and if this were true, he said, all that was possible was gained, while but little could be lost from the exploratory incision.

Dr. J. Williston Wright said he was not prepared to take the ground that all cases of penetrating wounds of the abdomen were to be treated by laparotomy. As regards gunshot wounds, it would be found that the large or small size of the missile, as well as the velocity of the latter, made a great difference in the severity of the injury. Dr. Wright facetiously expressed his contempt for the ordinary 22 calibre revolver bullet by saying, that if any one were to shoot him with one of these balls he should feel it his duty to go across the street and kick the individual firing the shot. As a rule, such a bullet lodged in the abdominal walls, but even if it did penetrate the cavity and pass through a knuckle of intestine, the opening made by it was so small that an eversion of the mucous membrane was caused, which would be sufficient to prevent the extravasation of fecal matter, while the hæmorrhage would be but trifling. But if, on the other hand, he were called to a case in which the injury had been inflicted by what is known as an "express charge"—a 40 calibre bullet weighing 270 grains, with 110 grains of powder behind it—he would expect to find abundant indications for the performance of laparotomy, and even in the absence of symptoms, he would consider the case one for immediate operation, because he would feel very sure that if such a missile got into the abdominal cavity at all, it would cut and tear everything that came in its way.

In stab wounds he said he would not perform laparotomy in many cases, even if he knew that the wound were a penetrating wound, or even if the omentum were protruding. In this connection he mentioned the case of an intoxicated sailor who stabbed himself in the abdomen, and when a portion of the omentum protruded through the wound, caught hold of it in his drunken folly and dragged it still further out. Yet the man recovered perfectly, and that without being laid up for an hour. He also mentioned a somewhat similar case at Bellevue, that of Carpenter the murderer, who stabbed himself in the abdomen.

Dr. R. F. Weir said that in penetrating wounds, unless there were symptoms indicating injury of the intestines or abdominal viscera, he did not think it was advisable to interfere. With gunshot wounds, however, the case was different, and he did not hesitate to acknowledge that he had more respect for the small bullet than Dr. Wright. As a rule, one of the indications was to explore the wound under any circumstances, and he thought that statistics clearly proved that every gunshot wound of the abdomen at short range should be carefully examined in order to see whether it penetrated the cavity. If there was shock which did not proceed from hæmorrhage, it was best to defer laparotomy until this had passed, but he agreed with Dr Bryant that it was best to make a small exploratory incision in every case where it was impossible to decide whether the shock was due to hæmorrhage or not

Dr W M Polk said that the exploratory incision, as practised in gynecological surgery, was a very simple affair, less free from danger than the opening of the pleural cavity, but he doubted whether such a very simple incision as those who confined their attention to this department frequently had to make would be sufficient in the class of cases now under discussion If it was necessary to introduce the hand and feel around among the intestines, a great deal was added to the risk, and the more the intestines had to be handled, the greater the danger would be

Dr W Gill Wylie said that he would have no hesitation in opening the peritoneum in any case where the patient's life was in question There was very little danger of increasing shock thereby, and if the shock was due to hæmorrhage, which was very likely to be the case, the prompt performance of laparotomy was urgently demanded for the purpose of checking this One of the principal dangers was from septic infection, and after performing operations in the abdominal cavity he not infrequently washed out the latter with a solution of bichloride of mercury, 1 to 10,000, following this with the injection of simple hot water

At a general meeting of the Academy held December 17, Dr T Gaillard Thomas read a paper on *Vaginal and Vulvar Enterocele* It was curious, he said, to note how very generally these varieties of hernia have been ignored in the systematic treatises, and this was the more remarkable since errors in their diagnosis were very liable to occur Of *vaginal enterocele* he said that it consisted in a descent of the intestines into the pelvic cavity, either in front of or posterior to the broad ligament, this descent always taking place obliquely A tumor finally formed in the vaginal canal, inverted one wall of that canal more and more completely, and might end by escaping from the vulva and hanging outside the body, as a complete prolapse of the bladder or rectum would do Under these circumstances it was evident that the tumor which protruded had for its component parts (1) the inverted vaginal wall, (2) the peritoneum, and (3) the intestines Later on in the paper Dr Thomas related a very remarkable case which had lately come under his notice, in which such a vaginal hernia hung down to the middle of the thigh, and in which, on account of the extreme sufferings of the patient, which had lasted for a number of years, he was induced to perform laparotomy When the abdominal walls had been cut through, an assistant in the meanwhile pressing the tumor up in the pelvis, he found, on a line with the symphysis pubis, a large soft tumor, which had probably been the original source of the trouble This he removed, securing the sac in the abdominal wound with sutures, and the patient made a good recovery Five weeks had now elapsed, and there had been no return of the symptoms which had formerly rendered the patient's life miserable, though he said that he still felt somewhat apprehensive of the future The tumor removed was examined by Dr H C Coe, the pathologist to the Woman's Hospital, and he expressed the opinion that it was probably an unusual growth of the pelvic connective tissue

Unquestionably the greatest danger attending vaginal, as well as pudendal and perineal hernia, arose from the possibility of an error of diagnosis on the part of an impulsive or unwary surgeon Vaginal hernia as long as it remained in the pelvic cavity, and did not interfere with parturition, was usually a matter of little moment Under certain malign influences, however, occurring during labor, as well as in the non parturient state, such as pressure from the fœtal head, inflammatory processes, fœcal impaction, torsion of the contents of the sac, or the existence of a neoplasm, strangulation might occur The symptoms which were then apt to develop were Difficulty in locomotion, pelvic tenesmus, dragging sensations, tendency to constipation, and, in time, vomiting Should the accident complicate parturition, obstructed labor was apt to result Upon vaginal examination a tumor of greater or less size was found in the vagina, and was diagnosticated by the following physical signs It is supple, soft and yielding, decreases upon pressure, gives a sense of gurgling to the finger, if not to the ear, increases upon the patient's coughing or straining, yields resonance upon percussion, and is very generally reducible if the patient is placed in the knee chest position and efficient taxis is practiced Error in diagnosis was likely to occur, Dr Thomas said, from the practitioner's being too confident, too much off his guard and too little inclined to consider the possibility of a mistake If he approached these cases calmly, philosophically, and in a proper spirit of diagnostic investigation, it was very improbable that the nature of the trouble would be misunderstood In certain rare instances acute vaginal hernia occurred as a consequence of some traumatic influence destroying the continuity of this canal in its upper part, and he related two such cases which had come under his own observation

Pudendal hernia demonstrated its existence by the presence of an elastic tumor about the middle of the labium majus of one side Having explained its mode of origin, he said that from inguinal hernia ending by descent into one of the labia majora the internal variety might thus be distinguished (1) The finger, pushing the tumor upward, will pass into the pelvic cavity between the ischium and vagina (2) At the level of the os uteri, or thereabouts, it will enter the pelvic roof (3) Pressure being maintained on the inguinal canal, and the patient being ordered to cough, it will, in spite of the pressure, recur The following conditions are mentioned as liable to be confounded with pudendal hernia Cyst or abscess of the vulvo vaginal gland, abscess of labium majus, fatty or fibrous tumors of the labium, tumors descending from the pelvic cavity The differentiation of pudendal hernia from these conditions of the labia should be very carefully considered, for if an erroneous diagnosis were made here, a fatal issue would probably be the result The diagnostic signs which proved most reliable, and which might almost be styled pathognomonic, were these (1) Airy feeling upon palpation, (2), gurgling upon replacement, (3), diminished tension in the dorsal decubitus, (4), diminution of bulk upon taxis, (5), resonance upon percussion, (6), succussion upon coughing, (7), intestinal pains of colicky character

Dr Thomas then went on to speak of perineal hernia This might affect both male and female, and in the latter it consisted of the descent of the intestines between the vagina and rectum, the advance being made posterior to the broad ligament, and continuing *until the perineal muscles are forced apart*, and the gut, with its peritoneal envelope, was arrested by the skin All these varieties of hernia were usually readily amenable to taxis, and this he had invariably found to be greatly facilitated by the knee chest position In some rare cases strangulation occurred, and under these circumstances the same surgical practice was indicated as in inguinal or crural hernia, viz cautious opening of the sac, and section of the constricting band by passing up a probe-pointed bistoury

In conclusion, he remarked that, unfortunately, little could be said concerning the treatment of vaginal or vulvar hernia, for the reason that there was but one variety, the pudendal, for which very much could be done That variety was amenable to treatment by the ordinary truss, as inguinal hernia was The other varieties could to a limited degree be relieved by pessaries, perineal pads, abdominal bandages, etc , but we were poor in methods of decided relief, and utterly wanting in those of cure It appeared to him that the plan suggested and partially carried out in the case of vaginal hernia which he had related promised more than any other which had been brought forward, but of the validity of this promise time and experience would have to give the proof He was certain that if another case of large vaginal hernia should present itself he should feel inclined to try laparotomy, dragging up the sac, and fastening it in the abdominal wound P B P

THE INTERNATIONAL CONGRESS

To THE EDITOR OF THE JOURNAL

Dear Sir —According to the *Medical News* (of Philadelphia) of December 26, "*The Medical Record* gives the following editorial note from the *St Petersburg med Wochenschrift*, of Nov 21 'The prospects of the next International Medical Congress, which *was* to meet in 1887, in Washington, have lately, in an unusual manner, been put in jeopardy The original Organizing Committee, of which, as announced by us in previous communications, *the well known Surgeon General of the U S Army was Secretary-General*, and to which the most distinguished American physicians belonged, has been retired This was accomplished through the intrigues and hostility which developed at the last annual meeting in New Orleans At this time a new Committee was appointed, *under the Presidency of a Dr Shoemaker*, of Philadelphia This new organization committee contains but a few of the members of the previous committee, and *is composed mostly of unknown and insignificant physicians*, who inspire no confidence in their capacity for conducting the Congress'"

When the *St Petersburg med Wochenschrift* knows no better than to confound "*the well-known Surgeon General of the Army*" with the officer who was the Secretary-General of the committee of seven, it publishes the value of its condemnation of the new committee as "composed mostly of unknown and insignificant physicians" To it they doubtless are unknown But what shall be said of both the *Medical Record* and *Medical News*, which reproduce this statement about "the well-known Surgeon General of the Army" (and not for the first time) without contradiction?

SURGEON

MISCELLANEOUS

THE PHILADELPHIA POLYCLINIC —The new building for the Philadelphia Polyclinic College on Broad Street will soon be ready for its occupants The building will contain more hospital wards and private rooms for pay patients, and the dispensary service will be given more attention

POISON IN GEORGIA —A new law in Georgia enjoins that poison must be put up in scarlet wrappers and the bottles labeled with paper of the same color, the printing to be in white letters "Of all the hard papers to find in market," says a wholesale druggist, "scarlet is the most difficult, and printers say they cannot print in white upon such a surface The lawmakers have hit upon an extremely difficult problem for the druggists "

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM DECEMBER 26 1885 TO DECEMBER 31 1885

First Lieut Thos J C Maddox, Asst Surgeon, killed Dec 19, 1885, in affair with Apache Indians, near the White House, New Mexico

Asst Surgeon F J Ives, ordered to report to commanding officer District of New Mexico for duty in the field (S O 127, Dept Platte, Dec 23, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED JANUARY 2 1886

Purviance, George, Surgeon, to proceed to Chicago, Illinois, as inspector Dec 23, 1885

Guiteras, John, Passed Asst Surgeon, to proceed to St Louis, Missouri, for duty Dec 23, 1885 Granted leave of absence for seven days Dec 26, 1885

Urquhart, F M Passed Asst Surgeon, to proceed to Charleston, South Carolina, for temporary duty Dec 23, 1885

Bratton, W D , Asst Surgeon, granted leave of absence for twenty two days Dec 22, 1885

McIntosh, W P , Asst Surgeon, granted leave of absence for fourteen days Dec 22, 1885

Guiteras, John, Passed Asst Surgeon, upon expiration of leave of absence, to re assume charge of the Service at Charleston, S C Dec 29, 1885

Fattic, J B , Asst Surgeon, appointed an Assistant Surgeon, Dec 28, 1885 Assigned to duty at Baltimore, Md , Dec 29, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI · CHICAGO, JANUARY 16, 1886 No 3

ORIGINAL ARTICLES

FIVE CASES OF PELVIC CELLULITIS TERMINATING IN ABSCESS[1]

BY AUGUSTUS P CLARKE, M D,
OF CAMBRIDGE, MASS

I have had several cases of pelvic cellulitis terminating in abscess The cases in the non puerperal state have usually resulted in resolution, but this has not been the invariable rule The most obscure and difficult to diagnosticate have been those of a chronic type or cases in which the constitutional symptoms were less pronounced, or cases in which pain was one of the leading symptoms Cases have occurred in which the urinary symptoms were at first the most troublesome Cases have occurred in which there was pain in the region of the hips, knees, an anxious countenance, chills, marked increase of temperature and of the pulse, alternations of sweating and partial recovery

In some cases careful vaginal examination at first failed to reveal the true cause of the symptoms This was so particularly in the case of Mrs G F S, aged 30 years, married, but who never had had a living child At the time I was called Mrs S had been married five years, she became pregnant, but miscarried at the fourth month Husband was of a healthy constitution and of regular habits I was first called on April 28, 1876 Mrs S complained of some pain in the region of the bladder and in the left groin She was sitting up She had had chills, but thought they were due to her sore throat—a slight attack of tonsillitis Next day, the 29th, the patient was better as regards her throat, but complained of her back, and of some disturbance in micturition The urine showed no indications of renal trouble There was a dragging sensation at the umbilicus On April 30 there was more pain in the bladder and great pressure felt in the pelvic region, there was some discomfort extending from the iliac region to the loins and to the umbilicus, and through the perineum and to the lower extremities A careful vaginal examination failed to disclose any marked or characteristic localized point of tenderness This examination was made on May 1 Subsequent examinations were made May 2, 3 and 4, but the appearances were not as yet well marked

The pain and urinary trouble, with very moderate constitutional disturbance, were the leading characteristics On May 5, 6 and 7 the pain in these parts was complained of as intolerable There were occasional chills, and each chill was invariably followed by profuse sweating Large and frequent doses of morphia were required The diagnosis was pelvic cellulitis with a probable formation of abscess There was, however, no fluctuation nor any marked swelling, but at times, by careful manipulation and firm pressure with the finger, I could elicit greater tenderness behind the uterus than in any other place Patient stated that she had been through a similar ordeal a year and a half before, but that there was no pus observed as occurring in that attack, that she was treated from time to time by an experienced physician, and was seen later in consultation by one of the leading members of the Massachusetts Medical Society, that her case at that time was not regarded as an abscess, but as a kind of uterine nervous affection

My visits were continued and the symptoms were essentially the same until May 16, when a small amount of purulent matter was found on vaginal examination, but no pain was discovered where it had been discharged The patient's symptoms were now easier, and by June 10 she was able to be up and about her house

On July 15 I was again called, and found that all of her old symptoms had again returned The pain, chills and sweating were the main symptoms She continued to suffer until July 30, when she began a speedy recovery During this attack there was no positive proof of suppuration, only a little muco purulent discharge which could be seen by very careful vaginal examination The uterus was not flexed, but was movable, though the cervix was drawn to the left side in consequence of the inflammation having occurred in the left broad ligament

On March 30, 1877, I was again called, when Mrs S had another attack after exposure during a drive in inclement weather She had just passed through her menstrual period when this attack began This attack lasted until May 16, when she was quite convalescent

The next attack began in August following I was called on August 17 This lasted until August 25, when she was able to be up and about the house During all these attacks subsequent to the first described, very little pus was seen, but the symptoms were essentially the same as at first There was no point discovered where pus was discharged, but it would probably be the result The diagnostic signs which proved most reliable, and which might almost be styled pathognomonic, were these (1) Airy feeling upon palpation, (2), gurgling upon replacement, (3), diminished tension in the dorsal decubitus, (4), diminution of bulk upon taxis, (5), resonance upon percussion, (6), succussion upon coughing, (7), intestinal pains of colicky character

---

[1] Read before the Boston Gynecological Society

Dr Thomas then went on to speak of perineal hernia This might affect both male and female, and in the latter it consisted of the descent of the intestines between the vagina and rectum, the advance being made posterior to the broad ligament, and continuing until the perineal muscles are forced apart, and the gut, with its peritoneal envelope, was arrested by the skin All these varieties of hernia were usually readily amenable to taxis, and this he had invariably found to be greatly facilitated by the knee chest position In some rare cases strangulation occurred, and under these circumstances the same surgical practice was indicated as in inguinal or crural hernia, viz cautious opening of the sac, and section of the constricting band by passing up a probe-pointed bistoury

In conclusion, he remarked that, unfortunately, little could be said concerning the treatment of vaginal or vulvar hernia, for the reason that there was but one variety, the pudendal, for which very much could be done That variety was amenable to treatment by the ordinary truss, as inguinal hernia was The other varieties could to a limited degree be relieved by pessaries, perineal pads, abdominal bandages, etc , but we were poor in methods of decided relief, and utterly wanting in those of cure It appeared to him that the plan suggested and partially carried out in the case of vaginal hernia which he had related promised more than any other which had been brought forward, but of the validity of this promise time and experience would have to give the proof He was certain that if another case of large vaginal hernia should present itself he should feel inclined to try laparotomy, dragging up the sac, and fastening it in the abdominal wound P B P

THE INTERNATIONAL CONGRESS

To the Editor of the Journal

Dear Sir —According to the *Medical News* (of Philadelphia) of December 26, "*The Medical Record* gives the following editorial note from the *St Petersburg med Wochenschrift*, of Nov 21 'The prospects of the next International Medical Congress which *was* to meet in 1887, in Washington, have lately, in an unusual manner, been put in jeopardy The original Organizing Committee, of which, as announced by us in previous communications, *the well-known Surgeon General of the U S Army was Secretary-General*, and to which the most distinguished American physicians belonged, has been retired This was accomplished through the intrigues and hostility which developed at the last annual meeting in New Orleans At this time a new Committee was appointed, *under the Presidency of a Dr Shoemaker*, of Philadelphia This new organization committee contains but a few of the members of the previous committee, and *is composed mostly of unknown and insignificant physicians*, who inspire no confidence in their capacity for conducting the Congress'"

When the *St Petersburg med Wochenschrift* knows no better than to confound "*the well-known Surgeon General of the Army*" with the officer who was the Secretary-General of the committee of seven, it publishes the value of its condemnation of the new committee as "composed mostly of unknown and insignificant physicians" To it they doubtless are unknown But what shall be said of both the *Medical Record* and *Medical News*, which reproduce this statement about "the well-known Surgeon General of the Army" (and not for the first time) without contradiction? SURGEON

MISCELLANEOUS

THE PHILADELPHIA POLYCLINIC —The new building for the Philadelphia Polyclinic College on Broad Street will soon be ready for its occupants The building will contain more hospital wards and private rooms for pay patients, and the dispensary service will be given more attention

---

POISON IN GEORGIA —A new law in Georgia enjoins that poison must be put up in scarlet wrappers and the bottles labeled with paper of the same color, the printing to be in white letters "Of all the hard papers to find in market," says a wholesale druggist, "scarlet is the most difficult, and printers say they cannot print in white upon such a surface The lawmakers have hit upon an extremely difficult problem for the druggists"

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM DECEMBER 26 1885 TO DECEMBER 31 1885

First Lieut Thos J C Maddox, Asst Surgeon, killed Dec 19, 1885, in affair with Apache Indians, near the White House, New Mexico

Asst Surgeon F J Ives, ordered to report to commanding officer District of New Mexico for duty in the field (S O 127, Dept Platte, Dec 23, 1885)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED JANUARY 2 1886

Purviance, George, Surgeon, to proceed to Chicago, Illinois, as inspector Dec 23, 1885

Guiteras, John, Passed Asst Surgeon, to proceed to St Louis, Missouri, for duty Dec 23, 1885 Granted leave of absence for seven days Dec 26, 1885

Urquhart, F M Passed Asst Surgeon, to proceed to Charleston, South Carolina, for temporary duty Dec 23, 1885

Bratton, W D , Asst Surgeon, granted leave of absence for twenty two days Dec 22, 1885

McIntosh, W P , Asst Surgeon, granted leave of absence for fourteen days Dec 22, 1885

Guiteras, John, Passed Asst Surgeon, upon expiration of leave of absence, to re assume charge of the Service at Charleston, S C Dec 29, 1885

Fattic, J B , Asst Surgeon, appointed an Assistant Surgeon, Dec 28, 1885 Assigned to duty at Baltimore, Md , Dec 29, 1885

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI · CHICAGO, JANUARY 16, 1886 No 3

ORIGINAL ARTICLES

FIVE CASES OF PELVIC CELLULITIS TERMINATING IN ABSCESS[1]

BY AUGUSTUS P CLARKE, M D,
OF CAMBRIDGE, MASS

I have had several cases of pelvic cellulitis terminating in abscess The cases in the non puerperal state have usually resulted in resolution, but this has not been the invariable rule The most obscure and difficult to diagnosticate have been those of a chronic type, or cases in which the constitutional symptoms were less pronounced, or cases in which pain was one of the leading symptoms Cases have occurred in which the urinary symptoms were at first the most troublesome Cases have occurred in which there was pain in the region of the hips, knees, an anxious countenance, chills, marked increase of temperature and of the pulse, alternations of sweating and partial recovery

In some cases careful vaginal examination at first failed to reveal the true cause of the symptoms This was so particularly in the case of Mrs G F S, aged 30 years, married, but who never had had a living child At the time I was called Mrs S had been married five years, she became pregnant, but miscarried at the fourth month Husband was of a healthy constitution and of regular habits I was first called on April 28, 1876 Mrs S complained of some pain in the region of the bladder and in the left groin She was sitting up She had had chills, but thought they were due to her sore throat—a slight attack of tonsillitis Next day, the 29th, the patient was better as regards her throat, but complained of her back, and of some disturbance in micturition The urine showed no indications of renal trouble There was a dragging sensation at the umbilicus On April 30 there was more pain in the bladder and great pressure felt in the pelvic region, there was some discomfort extending from the iliac region to the loins and to the umbilicus, and through the perineum and to the lower extremities A careful vaginal examination failed to disclose any marked or characteristic localized point of tenderness This examination was made on May 1 Subsequent examinations were made May 2, 3 and 4, but the appearances were not as yet well marked

The pain and urinary trouble, with very moderate constitutional disturbance, were the leading characteristics On May 5, 6 and 7 the pain in these parts was complained of as intolerable There were occasional chills, and each chill was invariably followed by profuse sweating Large and frequent doses of morphia were required The diagnosis was pelvic cellulitis with a probable formation of abscess There was, however, no fluctuation nor any marked swelling, but at times, by careful manipulation and firm pressure with the finger, I could elicit greater tenderness behind the uterus than in any other place Patient stated that she had been through a similar ordeal a year and a half before, but that there was no pus observed as occurring in that attack, that she was treated from time to time by an experienced physician, and was seen later in consultation by one of the leading members of the Massachusetts Medical Society, that her case at that time was not regarded as an abscess, but as a kind of uterine nervous affection

My visits were continued and the symptoms were essentially the same until May 16, when a small amount of purulent matter was found on vaginal examination, but no pain was discovered where it had been discharged The patient's symptoms were now easier, and by June 10 she was able to be up and about her house

On July 15 I was again called, and found that all of her old symptoms had again returned The pain, chills and sweating were the main symptoms She continued to suffer until July 30, when she began a speedy recovery During this attack there was no positive proof of suppuration, only a little muco purulent discharge which could be seen by very careful vaginal examination The uterus was not flexed, but was movable, though the cervix was drawn to the left side in consequence of the inflammation having occurred in the left broad ligament

On March 30, 1877, I was again called, when Mrs S had another attack after exposure during a drive in inclement weather She had just passed through her menstrual period when this attack began This attack lasted until May 16, when she was quite convalescent

The next attack began in August following I was called on August 17 This lasted until August 25, when she was able to be up and about the house During all these attacks subsequent to the first described, very little pus was seen, but the symptoms were essentially the same as at first There was no point discovered where pus was discharged, but it was believed the pus escaped from the posterior "cul de sac" or from behind the uterus. Most that could be seen by careful vaginal examination with a Sims's speculum was a small amount of purulent matter in the vagina and posterior to the cervix. There was, however, no cervicitis nor any laceration nor ectropion of the cervix. There was no large tumor indicative of a great collection of pus, but the length of the time during each attack, the chills, the sweating, the high temperature, which often reached 103° F., and the pain and general disturbance of the whole organization indicated suppuration. Such, in fact, was my diagnosis as expressed to the patient and her family.

---

[1] Read before the Boston Gynecological Society

After recovering from this attack she remained well as usual until some time after—the middle of April, 1878, when she was again seized with her old symptoms, but having removed from Cambridge, she was induced to call in an eminent surgeon of the Boston City Hospital. This surgeon saw the patient several times until May 4, when I was again called to take charge of the case. The patient was a great sufferer. On my first visit the nurse informed me that her previous medical attendant wholly disagreed as to my diagnosis, and stated that it was his opinion the patient had never suffered from an abscess of the pelvis, that there were no indications of the formation of any pus, though in his examination of the patient he did not make use of the speculum as an aid in the diagnosis.

May 6, by the help of Sims's largest speculum, and by the advantage of good sunlight, I was fortunate enough, with the assistance of the nurse, to discover the point where fluctuation appeared. By means of a small trocar and bistoury I let out a large amount of fetid pus, to the patient's speedy and great relief. There was never any escape of pus into the rectum. The patient subsequently removed from the vicinity of Boston and thus wholly passed from my care. I learned that she suffered from a subsequent attack, but have had no special knowledge of the sequelæ of her case. The cause of this case was no doubt a pelvic hæmatocele, or some accident to the perimetric cellular tissue during the time of an abortion, which occurred soon after marriage.

Case 2.—Another case I was called to attend on September 28, 1870. This was an unmarried woman, Miss L., aged 16 years. She had been confined to bed for several days previous to my first visit. She had suffered from a severe exposure during a wet day immediately after having menstruated, which happened some two weeks previous to my first visit. Owing to her youth and being unmarried she deferred calling in medical aid until the pain became very severe. She had suffered from repeated chills, each followed by a good deal of febrile disturbance and general prostration. My next visit was on September 29, when the greatest pain was felt in the rectum, with pain shooting down through the perineum. This was controlled somewhat by the administration of full doses of opium.

On October 1 a large discharge of fetid pus escaped by the vagina. The opening occurred somewhat behind the uterus, but more to the right. There was great difficulty in making a satisfactory vaginal examination, owing to the narrow and unyielding state of the vagina. The patient quickly recovered, married, and became pregnant, but before the close of her term she was seized with uræmic convulsions. I succeeded in effecting an early delivery, but the case terminated fatally. The cervix, after recovery from the cellulitis was drawn to the right, owing to the inflammation in the right broad ligament. This case was evidently caused by a pelvic hæmatocele occurring immediately after menstruation, that instead of being absorbed, the mass softened and became purulent. The pus was so perfectly discharged that operative interference became unnecessary.

Case 3.—Another patient I was called to attend on April 29, 1883. Her age was 42 years, and she was the mother of three children, and had been married seventeen years. The youngest child was 12 years old. She had never before had any severe sickness, and had recovered well after each time of confinement. Never had suffered from laceration of the cervix uteri, nor of the perineum. At the time I was called she was suffering a good deal from tenderness about the uterus, and from severe pelvic pain. She also suffered from dysuria, and a feeling of bearing down and pressure on the rectum. As she had been troubled from the presence of hæmorrhoids or from irritation about the lower portion of the rectum, it was hoped that by the application of ligatures to the bleeding piles and by rupturing the sphincter ani the patient would make an early recovery. This operation only gave temporary relief, for after a short time her former symptoms returned with increased violence. She had severe pain, frequent chills, followed by high temperature, which for several days maintained points varying from 101° to 103.5° F. She also suffered greatly from exhausting sweats. The patient became so reduced for a while as to resemble a person in the advanced stage of phthisis. She was confined to her bed, and was able to take but little nourishment. The uterus was immovable, and the whole pelvic vaginal roof became hard and unyielding, and gave no indication of a point of suppuration. All the while the dysuria was great, and the urine had to be drawn by the catheter. Pressure on the rectum was bitterly complained of. Heroic doses of opiates in various forms were required for her relief, and even then she was made only partially comfortable.

This state of things continued until May 30, when a swelling appeared just above Poupart's ligament on the right, and I made a free incision down to the pus. The opening continued to discharge for some days, during which time an ordinary probe could be passed five inches towards the pelvis. On June 5 fluctuation appeared behind the uterus on the left, this was incised. Both these openings were frequently washed with a weak solution of carbolic acid and thymol. Small quantities of the latter were frequently injected into the sinuses, and into the pus cavity. The pain at length ceased, and by July 13 the patient was able to be up on a lounge, and both openings had closed.

August 27.—Vaginal examination showed that the abscess had contracted and cicatrized, and the uterus had become quite movable again The cervix was not drawn to either side, though the uterus had not fully ascended to its normal position

Here we evidently had inflammation of both broad ligaments The patient was then free from hæmorrhoids and had full and easy dejections She had fully recovered the use of the sphincter ani She was in good health, was regaining her strength, and her weight was 180 lbs This attack of cellulitis was undoubtedly brought on by the presence of internal hæmorrhoids,' and by the tenesmus from a contracted and rigid anus from which she had suffered for several years

Case 4 —Mrs R , aged 30 years I was in attendance from April 13 to June 27, 1879 In this case there was prolonged constitutional and local suffering The patient was finally able to be about again, but the uterus was fixed and the cervix drawn to the left There developed three years ago a marked cystocele and partial rectocele which for awhile I succeeded in some measure in relieving by an inflated rubber-disk pessary This lady was the mother of two children, but no marked laceration of the cervix or of the perineum occurred during her labors The cellulitis must have been induced by an attack of gonorrhœa contracted from an unfaithful husband The purulent matter must have passed up into the left Fallopian tube, and there excited the inflammation which produced such disastrous consequences She never recovered from the pelvic displacements An operation for ample closure of the vulva was undertaken for her relief in 1884, but this was only partially successful, for the united surfaces of the labia were constantly irritated by the continual displacement of the organs downwards The patient finally suffered from hæmoptysis, and died from local and constitutional disturbance during the early part of the year 1885

Case 5 —On June 11, 1872, I was called to attend Mrs T , aged 36 years She had recently moved from Portland, Maine, where some two years before she suffered from an attack of pelvic cellulitis, which terminated in abscess She at that time was under the care of the late Dr Greene, of that city She had been married eight years, but had never been pregnant She had stenosis of the cervix uteri, and suffered from dysmenorrhœa I continued to attend her from June 11 to July 3 of that year (1872) During this attack she suffered severely from pain and serious constitutional symptoms, and a pelvic abscess formed posterior to and to the left of the fundus uteri, the place where the former one had evidently occurred The abscess was high up and difficult to reach, but large quantities of fetid pus began to flow on June 28, and within a few days I was able to find the point of discharge This I enlarged so as to be able to insert the index finger and explored the cavity The lining membrane was rough and jagged An application of a solution of silver nitrate, ʒj—℥j, was made daily for several days, when the discharge ceased, and the cavity contracted and at length cicatrized I saw the patient on September 15 and November 27 following, when she called at my office There was then no discharge, and she was becoming quite strong again The uterus was raised up in the pelvis, and was somewhat retroverted, but it gave her no marked inconvenience The uterus was also fixed and tilted somewhat (the fundus) to the left

I heard from this patient two years afterwards and she was in her usual good health She had then left the State The cause of this attack I could not fully ascertain, but I believe it must have been in consequence of an attempt at dilatation of the contracted cervix uteri as a means of treatment for the stenosis This lady had been under the care (?) of an enthusiastic gynecologist but a short time previous to coming under the treatment of Dr Greene

THE EFFECTS OF COCAINE ON THE CENTRAL NERVOUS SYSTEM[1]

BY D R BROWER, M D

PROFESSOR OF DISEASES OF THE NERVOUS SYSTEM IN THE WOMAN S MEDICAL COLLEGE OF CHICAGO AND LECTURER ON PRACTICE OF MEDICINE IN RUSH MEDICAL COLLEGE (Spring Course)

We have recovered from the primary effects of the brilliant discovery of Dr Carl Koller, that sixteen months ago electrified the medical world, and can now reason together calmly and dispassionately about this powerful therapeutic agent

I have been using in private and hospital practice the preparation of the coca leaf for about six years, and for about one year past the alkaloid cocaine, and have reached certain conclusions as to its beneficial and its baneful effects on the central nervous system, that I propose to present for discussion in this paper I say beneficial and baneful effects, for my first proposition is, that it is as powerful for evil as it is for good

First Its effect upon the brain —In small doses, that is, three or four drachms of the infusion, or one-half to one grain of the alkaloid, it is one of the most certain and agreeable of all cerebral stimulants It increases the frequency of the pulse and respiration, and elevates the body temperature It gives a sense of well-being, a freedom from care, and a pleasant mental exaltation The first effect of the drug is upon the cerebrum, then upon the medulla oblongata, the sense of mental exhilaration preceding the stimulation of respiration and circulation In small doses it also stimulates the spinal cord producing a desire for muscular activity, and an increased activity of the reflexes

The effects upon the spinal cord, according to the experiments of Dr Alexander Bennet,[2] are due entirely to its action upon the posterior column of the spinal cord, an observation that may make the drug useful in locomotor ataxia I am now making clinical investigation in this direction

This increased activity of the central nervous system is usually followed by a quiet, composed, self-satisfied condition of the mind and body that eventuates in sleep These agreeable effects are accompanied with loss of appetite, frequently with nausea, constipation and diminished activity of the kidneys, of the sexual functions, and of the skin In large doses, two to ten grains of the alkaloid, there are produced tinnitus aurium, photophobia, illusions, hallucinations, great loquacity, and a marked tendency of the mind to exaggeration and misrepresentation If continued for some time this dose produces perversion of the affections, a disturbance of the moral emotions, a tendency to quarrel with friends and former associates, and to form alliances with persons formerly regarded as inferiors

---

[1] Read before the Chicago Medical Society Jan 4 1886

[2] British Medical Journal April 18 1874

This state of the nervous system may become very like delirium tremens, with the same kind of muscular tremor, and the same kind of horrible hallucinations During this time the loss of appetite and diminished activity of assimilation result in extreme pallor of the face, dryness of skin, extreme constipation, very much diminished urinary excretion, loss of sexual function, and great emaciation

Second Cocaine in the Alcohol and Opium Inebrieties —Much has been written upon the use of this drug in efforts to cure this form of nerve mal-nutrition Louis Bauer, M D,[1] in an admirable article details his experience with it in a case of alcohol inebriety He began with one fifth of a grain, which the patient soon increased to ten grains by hypodermic injection, with the same disastrous result upon the nervous system as has been mentioned, but he expresses the opinion that the cocaine inebriety was less objectionable than the alcoholic

Dr Erlenmeyer[2] gave it, in various doses, in 236 cases of opium inebriety, and expresses sentiments that entirely agree with my own He says that while cocaine does modify and mitigate the phenomena of opium abstinence, its effect is only transient and of brief duration, he regards it of trifling value as a substitute for morphine

Dr J T Whittaker[3] reports, in an elaborate paper, the results from its hypodermic use in two cases of opium inebriety that were satisfactory Dr Palmer, of Louisville, Ky, who was one of the first to advise its use in such cases, continues to be an enthusiastic advocate of the drug

My own experience is against its use in either of these inebrieties; it undoubtedly makes the withdrawal of either of these agents much easier for the patient, because its effects are so similar to opium and alcohol that he scarcely feels the need of either, but you place within his reach an agent much more rapidly disastrous and destructive to the nutrition of the cerebral convolutions, an agent that will soon sink him to a degradation much lower than is possible with either of the others

Third Cocaine in Melancholia —The best results yet obtained from the administration of the drug have been in conditions of mental depression Dr Jerome K Bauduy,[4] in a valuable paper read before the American Neurological Society, June 17, 1885, relates a very extensive experience with the drug in melancholia His method is to inject one grain of the muriate of cocaine, and he frequently witnesses the morose, silent, taciturn patient, a prey to the most profound grief or sadness, recover his normal self, begin to talk about his case and wonder how he could ever have experienced such gloomy ideas He reports one case of suicidal melancholia which recovered in less than one month, and to whom he only gave five injections of cocaine Dr Alex B Shaw,[1] in an able paper on the uses of the drug, speaks with the same degree of positiveness of its value in the insanities with depression

My own experience, with cocaine, in this form of insanity is in accord with Drs Bauduy and Shaw Although the bad effects of the drug upon the digestive and assimilative processes, and upon the secretions, have frequently disappointed me in its use I have observed their valuable suggestion of giving the drug several hours before eating, in order to avoid the anorexia and nausea, but even with this precaution I have frequently found it impossible, while using it, to give that great abundance of food, that systematic feeding, which after all, is the most valuable therapeutic measure in the relief of melancholia

Then again the excretory organs are often at fault, indeed often the foundation of this form of insanity, the mal-nutrition of the brain being due to the accumulation in the blood of the waste products of tissue metamorphosis In such cases the further depression added to this by cocaine, must more than counteract the beneficial effects of the cerebral stimulation In such cases alteratives and stomachic tonics added to the treatment may make it successful

I recall two cases of profound melancholia One, a physician, aged 45, from a neighboring town of this State, an uncomplicated case, the result of excessive professional work in a large country practice He received the cocaine in one grain doses three times a day, with pil hydrargyri, aloes and strychnia His recovery was rapid, and has continued for four months The other case was that of a woman, aged 48, from Indiana, laboring under melancholia, that seemed to have its origin in the fret and worry induced by a tumor of one of the mammary glands Under this combined treatment recovered about as rapidly as the case detailed by Dr Bauduy In both these cases the drug was administered in pill form, and probably because of its combination did not interfere with the free use of egg-nog and other concentrated food in large quantities

I have now under treatment a case of melancholia in which I am using the drug with the atomizer, using about four grains a day, on the nasal mucous membrane The stimulating effects on the brain are manifested in a very few minutes after it is used I am of the opinion that cocaine is the most valuable recent addition made to the therapeutics of melancholia, especially if its bad effects are guarded against in the way suggested

Fourth Neurasthenia —Cocaine is of value in the treatment of this tedious and perplexing derangement of the nervous system Dr J Leonard Corning,[2] in his scientific review of the cerebral form of this disease, calls it "the remedy *par excellence*"

---

[1] Weekly Medical Review Vol I No 12

[2] Centralblatt für Nervenheilkund July, 1885

[3] Medical and Surgical Reporter, Aug 15 1885

[4] New York Medical Journal Sept 26, 1885

[1] The Weekly Medical Review, Vol XII, No 17

[2] Brain Exhaustion

Dr William Oliver Moore,[1] in a very valuable paper on the physiological and therapeutical effects of coca and its alkaloid, gives his personal experience and the observations of others as to the value of the drug in all depressed conditions of the nerve centres, as well as its effects upon himself in various doses

My experience coincides with the testimony of these writers, but I observe the same care in sustaining the digestive function and stimulating the eliminations as stated before Cocaine as mentioned in the beginning of this paper, is as powerful for evil as for good, and it requires no special prophetic gift to say that more disastrous results will be experienced by the laity from its indiscriminate use, than have been known from either opium or alcohol Indeed, its action upon some persons in moderate doses is alarming Dr G W Kinnicutt relates a case of poisoning from three and a third grains of the drug applied to the nasal mucous membrane, in the case of a female aged twenty-five, who had been using it for hay fever When he arrived she was in an alarming comatose condition, from which she recovered in about three hours, under the liberal use of brandy, ammonia and digitalis, with heat to her extremities and epigastrium

Dr J Spear,[3] U S Navy, publishes a case of profound coma closely simulating opium poisoning, in a private, U S M C, aged twenty nine, the result of the hypodermic use of ten grains in divided doses, extending over about twelve hours The case was supposed to be opium poisoning, and was treated with atropia, coffee, and flagellation, and in about nine hours he recovered from the immediate effect of the poison Dr T H Burchard[4] gives an account of a case in which the hypodermic injection of four-fifths of a grain produced a sudden and complete loss of consciousness, and in which respiration stopped, and the radial pulse was scarcely perceptible Artificial respiration, hypodermic injection of one twelfth grain of atropia, and sinapisms to heart and extremities, relieved the patient Fifteen minutes after the prostration the pulse was forty-eight and feeble, the respiration seven or eight, and the pupils contracted Unconsciousness continued about twenty minutes

Dr Merriam[5] relates the case of a gentleman who had been taking cocaine for four months for sick headache beginning with about two grains a day, and gradually increasing till he was taking from ten to fifteen grains daily He was very weak, with a pulse of 100, and his mind wandering somewhat as in delirium tremens Drs Bauduy and Shaw, in their papers already mentioned, dwell especially upon the dangers of the continued use of the drug in large doses My experience is in accord with these several observers Several cases of the poisonous effects of the drug have been under my treatment during the past six months, and I will call the attention of the Society to two of these cases, both physicians

First The case of Dr W, aged about thirty, of excellent physique, of neurotic tendency by inheritance, who began the use of the hydrochlorate of cocaine upon the nasal and pharyngeal mucous membranes for hay fever He gradually increased the dose to five grains taken in one dose in the evening, when his attack of hay fever was usually most distressing This dose gave almost immediate relief from the hay fever, and gave a sense of mental stimulation very like champagne He was almost at once seized with a desire for brain work, and would pass the greater part of the night reading and writing on professional topics, experiencing a keenness of perception and a mental vigor greater than normal He describes his sensations during the period of activity of the drug as exceedingly delightful Towards morning he would fall asleep, and on the next day he would have no appetite and but little desire for work, the excessive stimulation having been followed by a corresponding depression of the vital forces

He soon had a very irregular and rapid action of the heart, and passed by rapid stages to a condition of deplorable neurasthenia, from which he is now slowly recovering He had the same derangement of digestion, assimilation and elimination that have been already mentioned He had but little desire for food, a thickly coated tongue, a feeble digestion, considerable emaciation, urine scanty, and much of the time loaded with uric acid and urates, with dyspnœa and the irregularity of heart action before mentioned The stools for some time were chalky, skin dry and pallid, pupils dilated, reflexes, especially the patellar tendon, much increased, and muscular powers much diminished

He continued the use of the drug about ten days, and stopped it because he feared its enslaving power The profound depression of the nervous system followed immediately upon its stoppage The agents used to overcome this neurasthenia were an abundance of easily digested food, mild alteratives, moderate alcoholics, strychnia in small doses, cinchona, and the compound syrup of hypophosphites As stated, the depression is gradually passing away, but the ten days' use of cocaine has incapacitated him for four months from the practice of his profession, and the probability is that at least three months more will be required to complete his restoration

Second The case of Dr B, aged thirty five, a man of decidedly neuropathic temperament, a hard working, conscientious, and skilful physician, in the enjoyment of a fair but very laborious practice, with an excellent family history Three years ago, with my assistance, he discontinued the use of opium, which he had been using excessively He began the use of cocaine last May in one-eighth grain doses, having been led to believe it to be a harmless stimulant, and being, at the time, much run down by excessive professional work It gave him such a sense of well-being as he had never experienced from any drug before, the sense of complete repose and self-satisfaction it produced being very much more marked and agreeable than that derived from opium He gradually increased the dose until he consumed about fifteen grains a day by hypodermic injection The large doses soon began to produce mental disturbance, he became irritable, quarrelsome, impetuous, and considered himself to be possessed of a mission, and that to revolutionize the medical practice, claiming to be able to cure all diseases by the potency of cocaine He gave it indiscriminately to all his patients He gave it to obstetric cases and to syphilitic cases He gave it to his wife, his three children and his mother He was formerly a modest man of science, he became bold and unscientific in his method, went about engaging in lawsuits, carrying a pistol and frequently brandishing it in public places, threatening vengeance upon all who dared to doubt the correctness of his various extravagant statements, a perfect terror in his neighborhood He had been a very devout member of the Roman Catholic Church, but the priest of the church could now do nothing towards restraining his wild impetuosity He neglected his practice and by his manner alienated those whom he did not neglect, so that very soon he lost it Piece by piece his horse, his buggy, and his furniture disappeared, until his family was reduced to poverty My repeated efforts to persuade him to stop the use of the drug were unsuccessful, indeed, simply resulted in making me the recipient of his wildest denunciations and of his severest threatenings Several physicians and druggists who made attempts to restrain him met with an equally positive rebuff The same general deterioration as before noticed, was manifest in his case, extreme pallor and dryness of skin, great emaciation, loss of appetite and no desire for sleep, so that for at least one week he did not assume the recumbent position

---

[1] Quarterly Bulletin New York Post Graduate School Vol I No 1

[2] Chicago Medical Journal Oct 1885

[3] The Medical Record Nov 14 1885

[4] The Medical Record Dec 5 1885

[5] Quoted by the Medical Record, Nov 28 1885 from Ohio Medical Journal

He continued to go from bad to worse until his *friends thought it best to restrain him* In pursuance of this object Dr F L Wadsworth and I appeared before the County Court and advised his removal to the Washingtonian Home Here the cocaine was gradually withdrawn, but his mental extravagance continued unabated He left this institution clandestinely, and is now supposed to be in Canada

To sum up

1 Cocaine in small or moderate doses is a cerebral stimulant, but produces derangement of the digestive and assimilative functions, and diminishes the elimination of waste

2 The use of cocaine in the alcoholic and opium inebriates is not satisfactory, while it is a more or less perfect substitute, yet its use is attended with greater danger than alcohol or opium

3 The use of cocaine in mental depression, if we carefully guard against the depressing effects of the drug upon digestion and assimilation, will often give better results than any drug hitherto used

4 The use of cocaine in neurasthenia is a valuable addition to the treatment

5 The drug, if administered in large doses persistently, causes a very marked deterioration of the central nervous system, producing a profound cerebral neurasthenia, and may produce such a mal nutrition of the cerebrum as to develop insanity

6 Cocaine, occasionally, in doses *heretofore* regarded as small, produces alarming depression of the central nervous system

SOME CASES OF REFLEX NEUROSIS[1]

BY G M GARLAND, M D ,

OF BOSTON, MASS

The subject of reflex neurosis is one of great interest, and the cases which come under this grouping, present such diversity of phenomena and such eccentricities of behavior that they are always fascinating to the observer The following cases presented themselves at the Carney Hospital, and were there treated during my service in the summer of 1885 They appear to me to be worthy of record

Case I —M I D , merchant, aged 58, entered the hospital on July 7, 1885 He had been suffering for six weeks with severe supra orbital neuralgia on the right side The pain was not continuous, but seized him at frequent intervals every day Each individual attack was of short duration, but the severity was so great and the patient's dread had become so exaggerated that he was completely unmanned He had lost flesh, strength and appetite, and he was nervous to an extreme degree He had been obliged to give up his business, and he emphasized the apprehension with which he awaited each attack His tongue was heavily coated and his bowels were constipated

Upon questioning, it was learned that the patient had had an attack of neuralgia in the same spot three years previous That attack was of short duration, however, and had never troubled him until it began at this time He was a man of free habits as regards food and drink He had always enjoyed good health up to last April, when he had pneumonia, which ran an ordinary course and terminated by complete res*olution His neuralgia began within a few weeks* after his recovery from the pneumonia His face presented a striking contrast between a high color on the cheeks and a zone of waxy pallor round his eyes

Physical examination revealed the following facts His heart, lungs and kidneys were sound There was no tenderness or swelling over the right supra orbital region His eyes were normal in appearance, and a later ophthalmoscopic examination by Dr Derby revealed merely a slight hypermetropia, which was fully compensated for by the glasses which he wore Nothing abnormal was found in his nostrils or mouth On opening his mouth, however, to exhibit his teeth, he excited an explosion of pain The right eye closed, tears ran from it and the lids trembled convulsively The face flushed and the mouth was drawn toward the painful side This attack lasted from one quarter to one-half a minute The patient then stated that he could produce these attacks by certain movements, which he avoided as much as possible Chewing his meat at table, drawing his shirt over his head, and certain other acts, would start the pain The examination of the ears was next in order, and these were found packed with hardened wax The right ear was so tightly plugged that it required nearly an hour of syringing before the mass was dislodged The left ear was cleansed *in a few minutes*

---

[1] Read before the Section for Clinical Medicine Pathology and Hygiene of the Suffolk District Medical Society December 9 1885

The fact that the patient could explode attacks of nervous force at will, by the movement of parts remote from the seat of the pain, led me to the belief that there must be a mechanical cause for the pain, and that I had discovered the cause in the impaction of the right aural canal. Accordingly, I stopped all the quinine and other powerful neuralgic medicines which he had been taking, and gave him simply one-twentieth of a grain of podophyllin before each meal to stimulate his digestive secretions.

The removal of the wax caused no pain or discomfort during the operation, and it was followed by an absolute cessation of the neuralgia for eleven days. Once or twice during these eleven days the patient reported a peculiar sensation over the right side of his forehead. It was not pain, but a sort of twitchy feeling in the skin. This aroused his apprehension again, but he was calmed by encouraging words and was told that time was required to cool the stove after the fire was out. On July 17 he sat and read in the sun for some time, and then experienced a mild attack of neuralgia. The pain differed from his previous attacks in that it was slight, and it persisted for ten or fifteen minutes. The house physician, Dr. Gleason, applied galvanism to his forehead, and this immediately relieved him.

Since that day he has had no other attack of pain; occasionally he would feel the twitching of the skin, referred to above, and to relieve this galvanism was applied eight or ten times. After leaving the hospital the patient took a trip to Europe, and has now returned to his business in perfect health.

There are several interesting points in connection with this case. The first is to trace out the nerve circuit between the ear tube and the supra orbital region. Dr. Hilton shows, in his work on "Rest and Pain," that the "upper and anterior part of the external ear and the auditory canal derive their sensibility from the fifth cerebral nerve," so that these portions of the ear are thus included in the sensory circuit with the forehead, temple, face, eyes, nose, teeth and tongue. The entire posterior surface and the anterior surface of the pendulous portion of the ear are supplied by branches from the second cervical nerve. The presence of wax in the ear tube seems a slight cause for so much distress, and yet if one will put his finger in his ear while making masticatory movements of the lower jaw, he will see that the wall of the canal is thereby moved in a forcible manner. Moreover, the history of a previous attack of neuralgia in the same region would lead one to assume an exaggerated susceptibility of the right supra orbital nerve. The future history of this case will be interesting.

The gradual cooling down of the excited nerve after the removal of the irritating cause was also an extremely interesting phenomena. For a number of weeks the patient complained of the twitching feeling described above, and such sensations always aroused his apprehensions.

Case 2.—This case exhibits a reversal of the nerve currents as compared with the previous one.

Miss C. P., aged 32. Entered the hospital June 18, 1885, with the history of a sore mouth since the preceding Friday, together with anorexia and vomiting. The mouth presented the familiar signs of mercurial salivation, with swollen gums and ulcerations. The patient complained of a sharp pain immediately behind the ears. A suitable mouth wash was prescribed and her gums rapidly improved. My term of service beginning in July, the previous treatment was continued until July 13, when my attention was especially attracted by a look of distress on her face, and by her complaints of a severe ear-ache on the left side which prevented sleep and was wearing out her strength. She said her ear had ached more or less from the time of entering the hospital, but it had grown much worse of late. In examining the ear nothing abnormal could be discovered outside or inside, and there was no tenderness to touch or upon percussion over the mastoid process. Between the anterior edge of the left steno mastoid muscle and the posterior edge of the ramus of the jaw there was a small spot very tender to pressure.

The mouth was next examined. The gums were everywhere healed, except around the left wisdom-tooth. Here the mucous membrane was swollen and pushed forward so as to conceal more than half of the tooth. On lifting this swollen tissue an ulcerated surface was exposed which was very tender to the touch. A small piece of lint, powdered with iodoform, was inserted between the gum and the tooth, and this constituted the entire treatment. Within two days the gum had receded almost to its natural position. The ear-ache was fast disappearing, and the patient could sleep. On the third day the dressing was omitted by mistake and the pain and sleeplessness returned. The lint was resumed. In two days more the ear-ache was entirely gone, and the patient was discharged well at the end of a week.

Case 3.—M. P., aged 68, entered the hospital June 20, 1885. Had been a sailor and fisherman for years. Ten months ago he contracted a cold and had been troubled with cough and dyspnœa since then. He is frequently awakened suddenly at night and is obliged to sit up gasping for air. During the day he has occasional paroxysms of severe dyspnœa, and his breathing is habitually rapid and labored. His face wears a distressed, weary look. Slight movements cause distress for breath, and he walks about with difficulty. The expectoration was a greenish-yellow, occasionally streaked with blood.

Physical examination revealed sibilant and sonorous râles over both chests, front and back. The inferior boundaries of the lung reached lower than normal, showing emphysematous enlargement. There were no signs of any pulmonary consolidation. Twenty years ago the patient's nose was bent toward the right side by a blow from a ball. Since the beginning of his cold he has noticed that he could not breathe through the right nostril.

From the date of his entrance until July 6, the patient was treated by various remedies addressed to his cough and to his asthmatic breathing, but no relief had been granted him. On July 6, I made an examination of the patient and found that his right nostril was packed with polyps. These polyps were four in number, large and firm in consistency. After two of them had been removed the patient experienced decided relief from his suffering and slept with comfort This improvement was still more increased after the removal of the remaining polyps at a later sitting All medication directed to his cough was stopped, and he was given some soda powders for his stomach, and an occasional laxative

The record for July 29 states that the moist râles heard at the previous examination had disappeared Only a high pitched sibilant râle could be heard occasionally on the left apex On violent respiration a few wheezy râles could be heard over the lowest part of the lung in front

During August, cocaine and glacial acetic acid were applied occasionally to the lower turbinated bones in both sides No other treatment has been employed since then, and within a few days the man reported himself to me in excellent condition He works about the hospital, goes up and down stairs at will, and breathes with ease Rarely he has an attack of asthmatic breathing at night

Case 4 —This was a peculiar case of laryngeal neurosis, which I was unable to trace to any local cause M A G , aged 39, unmarried, entered the hospital on September 8 She has always been a hard worker, but remarkably healthy Last December, after exposure to cold, she began to cough There was no expectoration then or at any time since She now grew somewhat hoarse This symptom varied at first, but finally increased in intensity until she could speak only in a whisper, and this aphonia has persisted up to the time of treatment at the hospital The cough was of a distressing, barking character, and persisted through all her waking hours at the rate of twelve to eighteen or twenty times per minute On retiring at night she would lie and cough for an hour or two before she could go to sleep The cough began by an audible sharp inspiration, as if the diaphragm contracted spasmodically, and this was followed by one or two loud expiratory barks The patient's hands and feet were restless, but exhibited no choreic movements or trembling Patient says she has lost forty pounds of flesh since she began coughing Her appetite is poor, and she complains of a dull, aching pain at the left side of the back after coughing

A careful physical examination was made There was no tenderness or tumefaction about the larynx The cords were slightly reddened, but were not paralyzed The throat and pharynx were considerably reddened by the rasping cough The lungs, heart, kidneys, ovaries and womb were normal The bowels were constipated, but yielded readily to laxatives Inasmuch as nearly every strong tonic had been tried upon the woman during the months of her affliction without any apparent benefit, it was thought advisable to try the effect of an ice-bag upon the spine Accordingly, on September 10, the bag was applied for two hours On the next day and thereafter it was applied for four hours daily

The hospital record, kept by Dr Gleason, reports the following progress

September 13 Patient coughs only when excited or nervous, and then only at long intervals The cough is no longer loud and barking, but is more like a clearing of the throat She goes out to walk daily

September 16 The cough has entirely ceased and patient can use her voice a little Her appetite and general health are improving

September 19 The voice is growing louder and clearer every day No return of the cough

September 29 Patient is able to talk in an ordinary tone without any hoarseness Her weight has increased several pounds Discharged well

In addition to the ice-bag, the following pill was given three times daily to stimulate the stomach

℞	Acid Arseniosi	gr 1 80
	Podophyli	1 20
	Quin Sulph	j
	Strychnine Sulph	1 80

and the patient also took one teaspoonful of malt after each meal Considering the large doses of strychnine and quinine which the woman had previously taken without avail, her improvement at the hospital would seem to be largely due to the influence of the spinal ice-bag

---

A CASE OF OVARIOTOMY

BY P J MURPHY, M D ,

OF WASHINGTON D C

To chronicle a success now a days in ovariotomy is, like "carrying coals to Newcastle," a work of supererogation, and I should not bring this to the notice of the profession, did I not deem it expedient to point out some minor details deserving more than a passing notice

The patient, Mrs D , aged 50, white, multipara, was first seen by me on the 5th of November last, when the following history was obtained There had been a gradual enlargement of the abdomen for three years, during which time she had been treated for an enlarged spleen, thought to be caused by chronic, malarial poisoning Accompanying the abdominal enlargement there had been anorexia, emaciation and progressive asthenia Of late, marked dyspnœa was experienced whenever the recumbent posture was assumed Urine normal Menstruation had ceased five years ago Upon examination, the abdomen was found to be enormously distended by an elastic, fluctuating mass Its contour was symmetrical and presented a slight appearance of flattening in the hypochondriac regions Flatness on percussion was everywhere present, extending even into the flanks The uterus was slightly increased in size, and seemed to occupy a position behind the tumor

The history of the case, together with its physical signs, clearly indicated that we had to do with a cystic tumor of the abdomen, which took its origin from the uterus, ovary, or broad ligament As a distinction between the last two conditions is unimportant as regards treatment, the problem presented for solution was, the possibility of excluding the presence of a fibro cyst of the uterus To accomplish this, is by no means easy In this connection Koeberlé states that "the diagnosis of fibro cystic tumors has, up to the present, been declared impossible by almost every author," and, as between uterine and ovarian cysts, Baker Brown admits that he knows of "no distinguishing marks" Later writers, however, take a more hopeful view of the situation, as the following table of differential points will illustrate

	OVARIAN CYSTS	FIBRO CYST OF UTERUS
Age	During period of ovarian activity 18-45 years	Generally *after* 30
Race	*Very rare* in negroes	*Most frequent* in negroes
Marriage	No influence	Generally in the unmarried or sterile
Duration	Relatively short Patient seeks advice early	Relatively long
General health	Not impaired at first Later emaciation urinary disorders hectic and prostration	Disease often present for many years without constitutional disorders
Menstruation	Normal or *absent* (both ovaries)	Normal or *profuse*
First noticed	In ovarian region	Above pubes
Examination Abdomen	Uniformly enlarged	Same
	Rotundity remains when recumbent posture is assumed by patient	Same
	Elastic and fluctuating	Increased sense of resistance Fluctuation often obscure
	Nodules when present *indistinctly* felt. (Endogenous cysts)	Nodules frequently felt low down *distinct, hard*
Uterus	Not connected with tumor normal in size retroverted *behind* tumor	Connected with tumor *Enlarged* drawn upward in pelvis
Fluid (most important in differential diagnosis)	Thick colloid sticky may be opaque opaline! Contains albumen *Not spontaneously coagulable*	Thick syrupy straw colored Contains much fibrin *Coagulates spontaneously*
Microscope	Drysdale's granular cell (Clears up upon the addition of acetic acid)	Fibre cells! No cells corresponding to Drysdale's

Although a careful review of the symptoms presented in this case suggested the probability of its ovarian origin, in my opinion a positive diagnosis, without the aid which a careful examination of the fluid would afford, was impossible, I therefore determined to perform *paracentesis abdominis* to secure a specimen of the fluid

And here let me call attention to the fact that the tendency of the day is to abandon tapping and substitute therefore, an exploratory incision I think this tendency is likely to be checked at no distant day, and it is my belief that were statistics furnished of the mortality following exploratory incision, it would be demonstrated that the operation is by no means devoid of danger Much can be learned by tapping without recourse to the more dangerous procedure of incision The removal of the growth should not, however, be delayed sufficiently long after tapping, to permit the formation of adhesions It may be urged that, by the employment of modern antiseptics, few cases terminate fatally as a result of exploratory incision Grant it! But the principle here as elsewhere should be observed, that of two evils, the *lesser* should always be chosen

A medium sized trocar was employed to obtain a specimen of the fluid, which was too thick to be withdrawn by means of an aspirator The wound was sealed with iodoform collodion, and the fluid sent to a competent microscopist for examination He pronounced the specimen as characteristic of ovarian dropsy containing numerous large, granular cells, corresponding in appearance and reaction to those described by Drysdale

During the night following the tapping, the patient was awakened from a sound sleep, with the feeling that "water was running from her stomach" Calling her daughter, it was discovered that from the puncture a steady stream of fluid was emerging A large slop jar was procured and the patient, turning upon her right side, filled the jar to overflowing The amount of fluid collected measured six and one half gallons I was summoned to see my patient, and after explaining the circuumstances, made an appointment to operate the following day

Assisted by Drs Wm Lee, Handy and Poole, Dr Brewer giving the anæsthetic, the usual operation was performed, lasting twenty eight minutes A large, partially collapsed, multilocular cyst of the right ovary was removed A quantity of the fluid contents of the sac was found in the abdominal cavity This was in part removed by means of hot carbolized sponges, although no effort was made to procure its *entire* removal The wound was closed by means of braided silk sutures which had been rendered thoroughly aseptic Iodoform gauze and marine lint constituted the dressing The patient sat up on the fourteenth day after the operation

The necessity of devoting scrupulous attention to the "toilet of the peritoneum," has been urged by most operators It seems to the writer that, in a great many instances, quite a number of extra frills are appended, which are not only needless but positively harmful If we consider for a moment what the peritoneum is, and what its function is, it will not require much knowledge to determine what amount of friction it will bear While "cleanliness is next to godliness," the too frequent use of the sponge in ovariotomy is often attended with danger

One other point *en passant*, the fluid contents of an ovarian cyst is, I believe, for the most part entirely innocuous That such was the case in this instance, is evidenced by the fact that a large quantity of the fluid remained within the peritoneal cavity for upwards of thirty six hours before the operation, without producing the slightest trace of irritation The record, also, of a large number of recoveries following rupture of the cyst, will tend to confirm this view

MEDICAL PROGRESS

Amputation at the Knee-Joint by Disarticulation, with Remarks on Amputation of the Leg by Lateral Flaps —At the meeting of the Royal Medical and Chirurgical Society, on December 8, Mr Thomas Bryant read a paper on this subject, which he commenced by saying that the operation of removal of the leg by disarticulation at the knee-joint was first practised in England by Mr S Lane, and had been advocated by Messrs G D Pollock, Pick, Stephen Smith, Markoe, Brinton, Staples, and himself It was still regarded with some suspicion and not frequently resorted to, amputation througn (or just above) the condyles being generally preferred The operation by disarticulation required for its success that the disease or injury should be confined to the leg, the condyles of the femur uninvolved or very slightly affected, and a sufficiency of healthy soft parts below the knee for the formation of a good flap If these conditions were not present, some other method of amputation would have to be adopted The author gave tables of his thirty cases, with the results Where there was no sloughing, no trouble was experienced with the articular cartilage on the condyles of the femur, and after healing the soft parts moved freely over the end of the femur The cicatrix was always placed well behind the femur The patella was preserved, its removal being found to be quite unnecessary The steps of the operation, after three different methods, were then described, viz that of Pollock by the long anterior flap, Pick's plan by lateral flaps, and Stephen Smith's method by lateral hooded flaps, and illustrations of the steps of the latter operation were shown The author endorsed completely the remarks of the American surgeon upon the value of this method of procedure, and strongly urged its application to cases of amputation in the leg also The muscle substance was generally included in the flap in thin subjects, but not in others The resulting stumps in the leg thereby obtained were excellent The method of Stephen Smith for amputation at the knee joint was to be preferred to either of the two other plans already mentioned, as it gave a better covering to the condyles of the femur, and the flaps were less prone to slough than in the long anterior flap of Pollock One case in five of the former sloughed, and rather more than half of the latter class of cases Smith's method also placed the cicatrix entirely behind the condyles and out of harm's way, whereas by Pick's method the cicatrix came to lie in the intercondyloid notch Moreover, Smith's plan permitted no bagging of fluids, the stump being in the best position for drainage The author advocated the leaving of the semilunar cartilages *in situ*, as of great advantage to the case, the soft parts being thereby all held well in place and the fascial relations preserved Dr Brinton, as early as 1872, had advised this point of practice Finally, the author summarized the advantages of this form of operation over amputation through the thigh in the following words (1) The lessened shock of operation (2) The lessened section of tissues and the non exposure of the muscular interspaces of the thigh (3) The escape from the necessity of sawing the femur, with its attendant risks (4) The preservation of the attachments of the thigh muscles, and consequently the greater mobility of the stump (5) The useful character of the resulting stump

MR PICK was glad that the subject had been brought forward, for he felt that the operation was still unpopular, and that preference was given to cutting through the femur, with its attendant dangers He preferred lateral flaps, in his earlier operations he had made long anterior flaps, and sloughing had frequently resulted, on one occasion he had practised a long posterior flap, but had found that it dragged upon the incision during repair The making of lateral flaps was, so to speak, an accident, they were necessitated by the condition of the skin in a traumatic case He rather disagreed as to leaving the patella, he thought that it was liable to be displaced, and that it might interfere with the fitting of an artificial limb

MR MARSH commented on the leaving of the articular cartilage, it was not only not followed by any untoward results, but it seemed to act in some measure as a barrier against absorption of wound products He did not think that any strong prejudice against this operation existed at St Bartholomew's It was very important to cut the flaps long enough

DR HARDIE (Manchester) spoke in favor of the operation He had read a paper at the Liverpool meeting of the British Medical Association, advocating its utility, but he preferred what he there called the "oblique circular" method He said there was no other stump, except that of a Syme's operation, which could compare with it, the anatomical conditions being just those favorable for a good result He thought the circular method lessened the chance of sloughing, as the skin flap remained a single piece He left the patella, and had never seen harm follow He was favorably struck with the idea of leaving the semilunar cartilage, it was of course a matter of great moment to secure, if possible, primary union

MR POLLOCK referred to the question of leaving the patella, there were decided advantages, less dissection was needed and few muscular insertions, he had never seen inconvenience result, not even as regarded the fixing of artificial limbs, on the contrary, the patients walked firmer, and with less throwing of the limb He preferred Dr Hardie's flaps to the lateral one advocated by Mr Pick

MR TIMOTHY HOLMES agreed that the results were very excellent when an operation was successfully carried out, but the method was more dangerous, and less often successful than amputations of the thigh done in any one way Such flaps, wherever and however obtained, were chiefly skin, and there was danger of their sloughing He approved of leaving the patella The danger of leaving a surface covered with cartilage was antiquated and exaggerated Nevertheless, the operation was one to be done sparingly and only after very mature consideration The plan of leaving the semilunar cartilages was a great improvement on the old plan —*Med Times and Gazette*, Dec 12, 1885

FRACTURE OF THE OLECRANON — In an original article on the prognosis and treatment of simple transverse fracture of the olecranon (*Centralbl für Chirurgie*, No 33, 1885), DR CARL LAUENSTEIN, of Hamburg, states that, in the opinion of all surgical authorities, union after this injury very rarely takes place by bone, but usually by fibrous bands which, according to their length, interfere more or less with the full use of the upper limb Hueter and Lossen hold that the chief cause of this failure of osseous union is the defective production of callus by the periosteum of the olecranon, which consists mainly of the non-vascular insertion of the tendon of the triceps According to Bardeleben, on the other hand, the formation of callus is prevented simply by separation during treatment of the two broken surfaces of bone Lauenstein agrees in the latter view, and asks why, if the periosteum of the olecranon is capable of producing callus in longitudinal fracture, it cannot do so when the fracture is transverse He holds that the prognosis of transverse fracture of the olecranon, and the probability of union merely by fibrous tissue, depend less on the special nature of the fracture than on inefficiency of such plan of treatment as is usually employed A treatment is advocated, which is analogous to that of Volkmann in dealing with simple transverse fracture of the patella The extra-articular collection of effused blood is first withdrawn by puncture, and the fragments are then brought into close apposition The three essential points in the treatment of transverse fracture of the olecranon are, it is stated, early removal of effused blood from the joint, prevention of separation of the fragments, and prevention of subsequent ankylosis of the elbow Such indications are not fulfilled by the ordinary plan of treatment It is clear that where, after an interval of from eight to fourteen days, the effusion of blood has been removed or much diminished by rest, elevation of the limb, cold applications, compression, etc , the chances of obtaining osseous union of the fragments have been lost The triceps muscle, deprived, through fracture of the olecranon, of its insertion, acts like any other muscle divided either by injury or in tenotomy, and undergoes more or less contraction When the effused blood is left to be removed by absorption, the risks of ankylosis of the elbow are considerably increased In most handbooks, the surgeon is advised to commence passive movement of the elbow about three weeks after the date of injury, an interval which is not sufficient for the attainment of complete osseous union of the fragments Simple extension of the forearm and forcing of the limb in this position do not suffice to keep the fragments in contact The author, after early removal of the effused blood, maintains the olecranon in contact with the ulna by applying strips of plaster wound diagonally around the arm, in order to avoid too much constriction Extension of the forearm is kept up for five or six weeks, until complete bony union has been established

THE VALUE OF CHLORIDE OF CALCIUM —In *The Practitioner*, Sept 1885, p 161, DR R W CRIGHTON contributes a most interesting article on the therapeutic value of chloride of calcium This drug is by no means a new one, but was well known during the last century under the name of muriate of lime

The author has used chloride of calcium for some years past, and says he knows of no other therapeutic agent that will produce the same good results in suitable cases In cases of glandular enlargements of the neck in children, it seems to have a wonderful effect, in many cases it must be given for a long time before any appreciable benefit is derived, and its use must be renewed at intervals to prevent a recurrence of the affection In pulmonary phthisis, it is useful only when there is evidence of the bronchial glands being affected, but in tabes mesenterica the good effects are striking and lasting, if the disease be not too far advanced In scrofulous caries it is also of great service Speaking of the physiological action of the drug, it is stated that its value is due to the activity of the chlorine, and to the especial function of lime in the assimilative and nutritive process Chloride of calcium is one of the normal ingredients of the blood, and is present in the gastric juice

In the *Brit Med Jour* , April, 1885, Dr Sidney Ringer records some experiments which throw light on the action of this drug If the heart of a frog has been subjected to the action of fluids, such as water or a solution of common salt, the ventricular contractions gradually cease and the ventricle stops in diastole The only constituent which will restore the suspended contractility is lime, by adding one part of chloride of calcium to 10,000 parts of saline solution, spontaneous contractions return, and the ventricle soon begins to beat as strongly as ever Any potassium salt has just the opposite effect The author always prescribes the crystallised chloride of calcium, as the anhydrous salt forms a turbid solution and has an unpleasant taste The dose given varies from 10 to 20 grains, but the author gives 1 to 3 grains for young children, and rarely over 12 to 15 grains for an adult

[Dr Coghill recommends 5 ounces of the crystallised salt in 12 ounces of syrup The dose of this solution varies from 5 to 40 minutes, three times a day It is best given in milk after meals A reference to the *Medical Digest*, sect 275 2, shows that this salt has been much appreciated in the past —*Rep*]—*London Medical Record*, Dec 15, 1885

LOCAL ANÆSTHESIA BY SUBCUTANEOUS INJECTIONS OF COCAINE —DR A LANDERER, of Leipzig, has recently made trial of subcutaneous injections of cocaine for producing local anæsthesia, and reports that the agent thus administered acts far better than anæsthetic ether, morphine, or any other means hitherto used with this object The mode of administration is very simple By means of an ordinary morphine syringe about fifteen minims of a four per cent solution are injected under the skin Anæsthesia is usually established at the end of five minutes If the patient after this interval still feel when the surface is scratched with a knife, the author waits one or two minutes longer The anæsthetic region is of about the size of a crown-piece A dissection, it is stated, may in this region be carried down below the fascia, and into the superficial layer of muscle, without causing any pain The influence of the cocaine is maintained for about half-an-hour If it be necessary to prolong the anæsthesia, a few drops of the solution may be applied to the wound, and allowed to remain until it is absorbed The subsequent healing of the wound is not in any way affected by the injection No unpleasant general after-effects have ever been observed by Dr Landerer, nor any local mischief, such as suppuration Injection of cocaine has been applied in cases of simple incision, of needle-extraction, and of removal of small tumors It has been applied also in a case of hydrocele Fifteen minims of a four per cent solution were first injected into the sac, and five minutes later, through the same canula, about a drachm and a half of a solution of iodine The latter injection did not cause any pain About six hours after the operation the patient complained of slight and very transient uneasiness Cocaine injection as a means of producing local anæsthesia is far preferable, Dr Landerer asserts, to the ether spray The cocaine solution, when introduced through a fine and and sharp needle, does not cause so much pain as the ether does, whilst freezing the skin The anæsthetic influence of the ether spray does not extend below the skin After injection of cocaine, on the other hand, the parts immediately below the skin are quite free from pain and sensation —*London Medical Record*, Dec 15, 1885

Treatment of Catarrhal Phthisis, of Hæmoptysis, and of Chronic Bronchitis by Terpene —Professor Germain See gives the following *resume* of his paper on this subject

1 It diminishes and quickly arrests purulent expectoration in catarrhal forms of phthisis Whether the muco purulent secretions proceed from the bronchi, irritated by tubercles, or from the walls of pulmonary cavities, whether the malady is at an early stage, or at a phase of purulent breaking down, or even of cavities already formed, terpene should be used whenever the formation of pus is sufficiently abundant to tire the patient, to exhaust the strength, or to cause him to waste away

2 It should be used with success in the hæmoptysis of the early stages of tuberculosis, that is to say, when the disease has not yet developed large cavities, with aneurisms of the pulmonary arteries

3 In the treatment of pulmonary catarrhs, of chronic bronchitis not dependent on asthma, and only producing dyspnœa by choking the bronchi, terpene constitutes the best method of lessening bronchial hypersecretion

4 The action is quick, sure, and free from physiological inconveniences, rendering it preferable to preparations of syrups of turpentine or tar, or of shoots of pine, which contain so little of it, and to essence of turpentine, which is not tolerated It even offers advantages over creosote, on account of its perfect innocuity and easy digestion

5 The best way of administering this medicine is either in the form of pills or tincture, and the best dose is one gramme

6 In catarrhal, or emphysematous, or nervous asthma, which is to be distinguished from primary catarrh, iodine and pyridine have an incontestable superiority —*Bulletin de l' Academie de Medicine*, No 30, 1885

Cocaine for Allaying Pain in the Destruction of Cancerous Growths —In the *Lancet*, Oct, 1885, p 663, Mr C E Jennings records two cases in which he used cocaine to alleviate pain, whilst caustics were applied to cancerous growths One patient was aged 73, and suffered from extensive scirrhous ulceration of the right breast The surface of the ulcer was covered with rugged irregular granulations which bled upon pressure, the veins around the growth were much engorged, and the pain was increasing After painting the ulcerated surface with a ten per cent solution of hydrochlorate of cocaine, a paste was applied consisting of cocaine, potassa fusa, and vaseline After some minutes a burning sensation was experienced, then the paste was quickly removed with the charred tissue, by means of pledgets of cotton-wool previously moistened with water The denuded surface was again painted with cocaine solution, and the compound paste reapplied By this means, more than a tablespoonful of cancerous growth was removed by a rapid and painless process The next day a clean, smooth, and bloodless surface, insensitive to the touch, was presented By this means, most of the scirrhous mass was removed after a few applications In the second case, the author destroyed a cancerous growth of the os and cervix uteri, by means of sticks of potassa fusa, and a ten per cent solution of cocaine —*London Medical Record*, Dec 15, 1885

Anæsthesia by Chloroform and Oxygen —At a meeting of the St Petersburg Medical Society, Dr Berteis (*Vratch*, No 48, 1884, p 816) made a communication on artificial anæsthesia after Neudorfer's method somewhat modified by himself Anæsthesia by means of a mixture of chloroform with oxygen requires far less quantities of chloroform comparatively with the usual methods of its administration, and is, correspondingly, associated with lesser danger Moreover, perfect anæsthesia ensues far more easily, and may be obtained even in those patients in whom chloroform alone has failed When the quantity of chloroform in the mixture does not exceed 10 per cent, no sickness is observed The pulse remains unchanged, the tongue never falls back To ensure complete narcosis, it is essential to firmly adjust the mask to the patient's face Professors A J Krassowski and V V Sutugin have also obtained good results from the use of a mixture of chloroform with oxygen —*London Medical Record*, Dec 15, 1885

A New Use of Atropine —Dr Frederic C Coley writes to the *British Medical Journal*, of Dec 26, 1885, as follows We often find it necessary to advise patients not to read, or write, or do any work requiring close attention In many cases, the patients are equally ready to promise obedience, and to break the promise under slight temptation Under these circumstances, we may fairly make the necessity for careful ophthalmoscopic examination (always desirable in these cases) an excuse for crippling the power of accommodation by a tolerably strong solution of atropine, the instillation to be repeated as often as necessary I generally use homatropine to dilate the pupil for merely diagnostic purposes, because the effect of it passes off in a few hours But in such cases as I have alluded to, atropine is preferable Of course, this suggestion is obvious enough, but it may be none the less useful for that

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.
PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, JANUARY 16, 1886.

THE TREATMENT OF CHRONIC HEART DISEASE BY MEANS OF BATHS AND GYMNASTIC EXERCISE.

Every practitioner, who has much to do with the treatment of heart-disease, must eventually come to appreciate that internal remedies have their limitations, and to long for some other effective means of reinvigorating damaged hearts. Digitalis has been the sheet-anchor in such cases, supplemented by rest and tonics. Most gratifying results have often rewarded the judicious physician. Perhaps as often his efforts have been frustrated by indiscretions on the part of the patient, or intolerance of medication. Therefore, although the prognosis as to speedy death may be favorable, the hope of ultimate recovery has to be abandoned. Such at least has been the opinion, either tacit or expressed, until within the last few years. In Germany, the treatment of chronic heart-disease has taken a new departure since the publication of Oertel's "Method of Therapeutics," the principle of which consists in the reduction of bodily fat and water. This is accomplished by diet, baths and mountain climbing (see editorial in THE JOURNAL, Vol. V, No. 17.)

In the same line as Oertel's in principle, yet differing from it in method, is the treatment employed by DR. AUGUST SCHOTT, physician of the baths of Bad Nauheim, Germany. His system is set forth in the *Berliner Klinische Wochenschrift* Nos. 33, 34, 35, 36, 1885. The principle of the treatment is to further the nutrition of the cardiac muscle, and thereby obtain an increase in its bulk, or, in other words, to promote hypertrophy and lessen dilatation. In this there is nothing new or original. It is only the means for obtaining this object which is novel. Notwithstanding the announcement of Beneke, in 1872 that sufferers from rheumatism, complicated by disease of the heart, were often greatly benefited by a judicious course of baths, that, indeed, as he expressed it, "even fresh endocarditic vegetations may often be absorbed," notwithstanding this statement as the result of Beneke's observation so long ago, and in spite of Oertel's publication, Schott claims priority in the recognition and advocacy of baths and exercise as therapeutic agents of the greatest value in diseases of the heart. He began his observations, he says, in 1871, but was unable to publish the results until 1883. At that date his brother, Dr. Theodore Schott, who has been his assistant, published the account of a single case which had experienced marked benefit from several systematic courses of baths, but was unable to employ the advantageous auxiliary of exercise.

Schott does not think it always necessary or judicious to reduce the fat and liquids of the body, to the same extent as Oertel. Nor does he believe in the employment of mountain climbing at the commencement. He would only have the patients resort to it after having prepared themselves for it by such gymnastic exercises as he describes. Schott asserts that, under his method of treatment, he has frequently recognized marked decrease in the area of præcordial dulness, an increased vigor of the pulse, and the disappearance of symptoms dependent upon venous engorgement. Altogether he has had 300 cases of heart-disease under his care since 1871, but as most of them returned to their homes before the benefit derived had become permanent, he has had to depend for his knowledge of their subsequent condition upon the reports of their family physicians. These have been for the most part highly gratifying. He disclaims any intention of advertising the baths at his resort as alone beneficial in such complaints. Favorable reports have been made by Mayer, of Aachen, Groedel, of Nauheim, and by Scholz, of Cudowa. Schott regards as particularly interesting the reports from the baths of the last named resort since their waters are chalybeate. Results from the employment of these waters exclusively are gratifying, but in his opinion they are not as great and enduring as from carefully graduated baths of warm alkaline waters, supplemented finally by such as are rich in carbonic acid. With these preliminary remarks we pass to the consideration of Schott's method of employing baths.

The scientific administration of mineral waters according to pathological process in each case is most desirable, but as yet Schott thinks it is seldom done. With but a few exceptions the literature of Balneo therapeutics is stuff and nonsense. Baths are prescribed in accordance with general indications instead of the peculiarities of each individual disease. System is necessary to the achievement of the best results. He therefore presents his method of employing baths, since its worth is attested by fourteen years of experience. Accordingly, patients whose diseased hearts are in the stage of ruptured compensation, should begin with diluted baths free from gas. It is not of interest to know which of the springs in Bad Nauheim are first used, and hence we shall give only his directions for the preparation of artificial baths. To this end he recommends the addition of one to one and a half parts of common table salt, and chlorate of lime to every one thousand of water. The bath at first should not exceed ten minutes, and for delicate persons not five. If the individual be rheumatic, or anæmic, or be specially sensitive to cold, the temperature of the bath should be 86° F., since, if the heart's vigor be below par, the circulation is not brisk enough to react well against any chilling of the surface of the body. Care should be taken to have this temperature maintained, since a difference of 2° less may produce an injurious chill in an individual with a weak pulse, an already cool skin and impaired nutrition. If the blood be driven in too large quantities into the interior, the resistance to be overcome by the weakened heart is augmented, and the cardiac disturbance is increased. The pulse becomes more rapid, smaller and more irregular, and dyspnœa greater.

If the patient be of a rheumatic diathesis, he must wait longer than others before trying cooler baths, since there exists a tendency to fluxions to the seats of former attacks and this must be guarded against. A higher temperature than 86° or possibly 88° F. ought never to be allowed, since the effect of the bath is lost, while, on the other hand, this degree of heat proves derivative, lessening congestion of internal organs and promoting free perspiration. The patient should be instructed to lie motionless for the *first half minute, until he feels perfectly comfortable*. If reaction does not set in at the end of that time, the temperature of the bath must be increased. Special care must be had that the patient does not remain long enough in the water to have the reaction succeeded by a feeling of chilliness. In such an event he must recover his warmth by rapidly raising the temperature of the bath, and then leave the water so soon as that is effected. The next bath must then be warmer and of shorter duration. As the patient becomes accustomed to the temperature prescribed and his circulation and nutrition improve, he may take gradually cooler and cooler baths. The difference should not exceed 1° F. at a time, great care being exercised to guard against a chill.

It is advisable to intermit a day in the baths, either after the first or the second one. They may then be taken daily, with the exception of one day in the week. As the strength of the heart increases, thus allowing a gradual lowering of the temperature, the length of stay in the water and the strength of the salts in solution can be increased. The former should not exceed twenty minutes, while the latter may be made to reach the strength of the waters of Bad Nauheim. Finally the patient is able to endure a water impregnated with carbonic acid. The effect of each bath upon both the heart and the whole organism must be the guide to any increase in length or strength of the bath. If the feeling of fatigue last an hour or two, the next day's bath should not be in anywise strengthened. The baths have been followed by complete results only when immediately afterward the pulse is found to be slower and by the sphygmomanometer stronger than before. A perceptible diminution in the size of the pulse should also be demonstrable, although it may return to its former dimensions during the day. A further consideration of the subject will be found in our next issue.

THE TREATMENT OF RUPTURED LIGAMENTUM PATELLÆ

Of the many valuable papers read before the New York Surgical Society during the past year, none were more interesting than one on "Rupture of the Ligamentum Patellæ, and its Treatment by Operation," read on December 8, by Professor Henry B. Sands. The comparative infrequency of rupture of this tendon as compared with fracture of the patella—about one to twenty-five, as gathered from the records of the New York, Bellevue, Roosevelt, and St. Luke's Hospitals—need not detract from the interest of the accident, and certainly does not diminish the importance of skilful treatment when it occurs. The rarity of the accident is probably to be ascribed to its great strength and thickness, "its relatively slight exposure to direct injury, and to the great mechanical advantage with which indirect violence often acts in causing fracture of the patella."

The first case (personal) recorded by Dr. Sands was that of a man who had had a fracture of the right patella ten years previously. Five months later it was again fractured, the result being fibrous union between the fragments, at a distance of two inches. The accident for which he was admitted to the hospital in 1882, when Dr. Sands first saw him, was a complete rupture of the ligamentum patellæ, close to its inferior extremity. The limb was extended to a horizontal position, and ice applied to the knee. On the ninth day, the pain and swelling having subsided the limb was suspended vertically, and a rubber bandage applied. About five weeks afterwards a water-glass bandage was applied from the ankle to the thigh, and the patient allowed to walk, and he was discharged on the fourth day after this, wearing a splint. He was examined in November, 1885, three years after the injury. Having disobeyed instructions, after leaving the hospital, by removing the splint and using the limb more freely, his knee remained stiff for five weeks, when mobility was suddenly restored by what must be regarded as a rather fortunate strain. Examination showed that the ligaments were equally long on both sides, and one leg seemed to be as strong as the other.

The second case recorded in the paper was treated by operation. The ligament, as nearly as could be ascertained, had been ruptured close to its inferior attachment, the accident having occurred at sea eight months before he came under the care of Dr. Sands. Three months after the accident the joint was incised to let out a collection of fluid, but no attempt was made to repair the injury. A longitudinal incision, six inches long, was made in the median line on the anterior aspect of the knee, with the centre of the incision opposite the lower edge of the patella. It was subsequently found necessary to lengthen the incision to nine inches. "On exposing the injured parts, in doing which the joint was freely opened, it was found that the ligamentum patellæ was torn away from the spine of the tibia," which was covered by a small amount of fibrous tissue, but enough to afford a hold for sutures. A little more than one inch of the ligament, in good condition, was attached to the patella. There was no union between the severed ends of the ligament, and it was with difficulty that they were brought together after being fastened. It was necessary to make deep oblique and transverse incisions in the quadriceps tendon before the upper end could be sufficiently drawn down to be connected with the lower, and it being evident that considerable force was necessary to secure and maintain apposition, two strong silver sutures were used, the ends twisted, "cut short, bent flatwise, and buried in the wound. The mucous and alar ligaments were found redundant, and were partly removed with the curved scissors. The incisions in the capsule of the joint were closed by catgut sutures," and the external wound united in the same manner, except at the upper and lower ends. A bone drain was placed in each extremity of the median incision, and one on each side, in openings made for the purpose. The antiseptic used was a 1 : 1000 solution of corrosive sublimate, and the wound afterwards covered with iodoform gauze. The limb was then enveloped in a moss-bag, moistened with bichloride solution, and fastened to a long, straight wooden splint, to which a foot piece was attached. Two months afterwards, when the patient was allowed to get up, a leather splint was applied, which was used two or three months, and then laid aside.

The final result in this case has been most satisfactory as regards usefulness and mobility, and this and the impunity with which the knee-joint can be opened, and even somewhat roughly handled, *with strict antiseptic precautions*, certainly seem to warrant opening of the joint in such cases. Success or failure in these cases seem to depend entirely on the proper observance of antiseptic principles, and we need not cite other operators than Dr. Sands to show that the most formidable operations can be done on the knee joint with a relative and absolute minimum of risk by following out the Listerian principles. Even the student of a few years ago can remember the reluctancy with which the peritoneal cavity was opened, and to day few operators hesitate to open it for exploratory purposes. We must heartily endorse the opinion expressed by Dr. Sands when he says that it is reasonably safe, "and I cannot doubt that the operation for opening the knee joint is already, when properly performed, far safer. I confidently anticipate the time when skilful and careful surgeons will be able to divest it of all danger either to life or limb, and, whenever this time arrives, our time honored, but clumsy, tedious and uncertain method of treating both fracture of the patella and rupture of its ligamentous attachments may well be abandoned in favor of sone form of operation calculated to secure an immediate union of the divided parts."

REPORTING CASES OF INFECTIOUS DISEASE.

There is no part of a physician's duties that requires more careful attention and strict accuracy of judgment, than in the diagnosis of such infectious diseases as he is required to report to the health authorities of our towns and cities. And it would appear from some recent judicial decisions that no part of his duties involves more danger both to his own reputation and his pecuniary interests. To report a child having only a catarrhal sore throat as a case of specific diphtheria is equivalent, in many cases, to shutting all the rest of the children of the family out of school for two or three weeks, and keeping the whole family in semi quarantine. Yet this is a very frequent mistake, with one class of practitioners at least. A less frequent mistake, but one which we have known to occur several times, is the calling of a simple evanescent fever accompanied by a fine miliary rash, scarlet fever. But the most serious of all this class of errors consists in pronouncing a case to be varioloid or small pox, which is only varicella, measles, or perhaps a few pimples of acne accidentally accompanied by fever of a transient character. It is more serious because it generally involves the removal of the patient to the pest-house or small-pox hospital, where he will be certain to be exposed to the contagium of that disease if he is not already laboring under it. No less than three cases have come under our own observation in this city, in which measles had been pronounced small-pox by the attending physician, and were prevented from a journey to the small-pox hospital only by a timely correction of the diagnosis. And it is not many years since a patient affected with measles was pronounced by the Medical Examiner of the Health Department to be laboring under small-pox and was removed to the pest house, where she soon recovered from the measles, but in due time was actually attacked with small-pox contracted in the hospital to which she had been taken by the health authorities.

A large proportion of such errors are caused either by carelessness in not obtaining a full history of the development of symptoms, or in an attempt to make a positive diagnosis before the disease has progressed far enough to enable the most skilful to render a reliable opinion. The practitioner often feels himself in a dilemma concerning such cases. If he hesitates or delays for more decided symptoms, and the case proves to be of an infectious or contagious character, he is liable to be censured for delay in reporting to the Health Department as well as by those who may be more or less in contact with the patient. If, to avoid this, he allows himself to make a hasty diagnosis, and, as some say, to be on "the safe side" pronounces it contagious and reports accordingly, he makes himself liable for all the damage that may follow to the person and business of the patient, if the resulting history proves his diagnosis to have been erroneous. Nothing could illustrate more fully the necessity of more attention to the clinical study of diagnosis as a part of the education of every medical student.

These thoughts have been suggested by a case recently brought in one of the courts of New York City. Dr. A. F. M. Purdy, a practitioner of experience and high standing reported a case to the Health Department as one of small pox. The Health Officer sent one of the medical examiners of that Department, who, after examining the case, confirmed Dr. Purdy's diagnosis, and the patient was removed, contrary to her own wishes, to a public hospital for contagious diseases. The sickness proved of short duration, and the patient brought suit against Dr. Purdy for damages on account of alleged erroneous report of her case to the Board of Health. The result was that the jury awarded the patient a judgment of five hundred dollars against Dr. Purdy, notwithstanding that both he and the medical examiner of the Health Board still claimed that their diagnosis was correct. It will thus be seen that in the matter of infectious and contagious diseases, the practitioner stands between two dangers. If he fails to report a case to the Health Department he is liable to prosecution and fines, and if he does report it and subsequent events throw the least doubt upon the correctness of such report, he is liable to prosecution by his patient, and heavy damages at the hands of a jury.

REGENERATION OF DIVIDED TENDONS.

The method which was applied by Gluck to the human subject has been recently studied anew by MM. FARGIN and ASSAKI on rabbits, the object being to ascertain the best method of causing regeneration of divided and shortened tendons. It will be remembered that Gluck joined the cut ends of a divided tendon by means of a bridge of catgut threads. Fargin and Assaki, having excised a portion of the tendo Achillis of a rabbit, filled the gap with catgut threads, strict antiseptic precautions being observed in order to ensure primary union. The animal being killed on the forty-ninth day, examination showed that the catgut threads were replaced by fibrous tissue, not identical in structure with tendon, but closely resembling it. Another animal operated upon in the same way was killed on the one hundredth day. The newly formed tendon was much more fully developed than in the first case, as was to be supposed.

The experimenters then substituted portions of tendon for the catgut, the tendons being taken indifferently from animals of the same and different species as the animal operated upon, portions of tendon from a sheep, a dog, chicken, and duck being used on rabbits, and *vice versâ*. The zoological relationship seemed to have no effect in promoting or detering union by first intention. Notwithstanding this, the experimenters assert that when primary union is impossible, and some substitute must be used for lost tendon substance, success will be more probable if the substitute be taken from an animal nearest to man in zoological order We do not see that this necessarily follows The results of these experiments are satisfactory, and are certainly sufficient warrant for the performance of the operation on man, of course under strict antiseptic measures

---

SMALL POX CHOLERA AND YELLOW FEVER

From the circular issued from the office of the National Board of Health, dated Dec 30, 1885, we learn that during November and December, cases of small pox continued to occur in Montreal and its vicinity, and two cases in Toronto In Europe cases of the same disease have been reported in London, Bradford, Bristol, Glasgow, Edinburgh, Paris, Bordeaux, Rheims, Antwerp, Zurich, Genoa, Leghorn, Venice, Prague, Trieste, Munich, St Petersburg and Warsaw Cases and deaths from cholera are reported as having occurred in Calcutta, in Osaka and Kioga, Japan, in Navarra and Zamora, Spain, in Finisterre, France, and in the Provinces of Palermo and Venetia, Italy Yellow fever is mentioned as existing at Havana and Caracas only

It will be seen that the contagium of small-pox is very widely diffused in Europe, and though steadily diminishing, is still destroying several lives each week in Montreal and its vicinity on this side of the Atlantic, while just enough of cholera lingers in Spain, Italy and France to keep the essential cause from becoming extinct during the winter, and to favor its increase and spread with the return of the next warm season

---

Death of Dr William Marsden—Dr William Marsden, of Quebec, Canada, recently died at his residence in that city in his 79th year He was one of the oldest and most eminent members of the profession in that country He had been an active sanitarian and had written much in reference to the etiology and modes of spread of epidemic cholera and the means for preventing the latter He was a firm believer in the contagiousness of the disease He was a visiting member of the American Medical Association at some of its annual meetings, and his name was on the Council of the Section of Public and International Hygiene of the Ninth International Medical Congress, at the time of his death

---

Correction—In stating, in issue of The Journal for January 9, that the *January* number of the *Chicago Medical Journal and Examiner* contained a full and connected history of the progress of the Organization of the Ninth International Medical Congress, we should have said the *December* number instead

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, December 3d, 1885

The President, B F Baer, M D, in the Chair.

(Concluded from page 50)

Dr Keating reported a case of

VESICO VAGINAL FISTULA,

from notes by Dr Howard H Pardee Rebecca Johnson, colored, married, was admitted to the Philadelphia Hospital in the summer of 1884, complaining of inability to retain her urine, and of a constant bearing down pain in the hypogastric region, a burning pain in the bladder, and of frequent back aches. She had noticed that the urine was sometimes blood-stained in the inter-menstrual periods She stated that about a year previously she had fallen out of bed and had struck upon a broken chair, one of the rounds of which had entered her vagina, hurting her severely, and that all her symptoms had dated from that accident Soon after her admission to the house an operation for vesico vaginal fistula was performed by Dr M B Musser, which relieved her for a time, but soon all the old symptoms returned In January, 1885, examination revealed an opening from the vagina into the bladder more than an inch and a half in length, involving the neck of the bladder and the posterior part of the urethra A pedunculated growth was also found in the bladder, and was removed No history of venereal disease could be obtained, there was a bad leucorrhœa In May, examination showed an enormous vesico-vaginal fistula, the neck of the bladder and the urethra had entirely disappeared The edges of the fistula were very thick and callous, and anteriorly very little tissue was left beneath the pelvic arch A small recto vaginal fistula was also found, and exhibited the same thick, rigid edges Several deep scars were found on the nymphæ and labia majora, which seemed to be the marks of healed chancroids An operation for the closure of the vesico vaginal fistula was performed Nov 15, 1885, but the patient died a week later. The specimens showing the wound closed were exhibited to the Society

Dr B F Baer presented the specimens and read the report of a case of

HYDRO- AND PYO SALPINX, COMPLICATED WITH FOLLICULAR DEGENERATION OF THE OVARIES

Mrs H, æt 42 years, was sent to me some months ago She complained of great pain in both iliac regions, more in the right, radiating into the pelvis and sacrum and down the limbs She had menorrhagia, and profuse leucorrhœa during the inter-menstrual periods She dated the trouble from an abortion which had occurred nine years before, and which was followed by symptoms of acute parametritis, from which she had never fully recovered Examination showed the uterus to be considerably hypertrophied, and fixed as in a vise by an indurated mass on either side of it, which seemed to occupy both broad ligaments, or to be closely adherent to them The cervix uteri was also badly lacerated, and its mucous membrane presented a surface so hypertrophied, abraded, and jagged, that I was at first strongly impressed with the fear that epitheliomatous degeneration had begun to develop I pursued a plan of treatment designed to reduce the congestion and hypertrophy of the diseased neck, and at the same time to induce an absorption of the plastic and indurated lymph around the uterus, to render the organ mobile, so that an operation might be made safe I only partially succeeded, for while the uterus became much more mobile, there still remained a swelling or tumor on either side of it These tumors had illy defined borders, were not circumscribed, but were elongated and rather cylindrical in form, and fixed to the lateral pelvic walls, as well as to the uterus, though not very firmly to either

I now suspected disease of the fallopian tubes, and probably also of the ovaries The patient entered my private Hospital in February, 1885, when I operated upon the cervix, dissecting away a large quantity of tissue for the purpose of making proper adjustment of the labia and to get rid of the cicatricial tissue It was not epitheliomatous I had *hoped by this operation not only to restore the cervix* to health, but at the same time to induce, by a derivative action, a retrograde metamorphosis in the diseased tissue and organs appended to the uterus I succeeded in the former, and also in modifying all of the symptoms except the pain in the ovarian regions This seemed to be made worse, or at least to become more prominent as the other symptoms were improved The patient was sent to her home, and advised to rest in the recumbent position for at least a part of every day Later, as she did not improve, a local treatment consisting of an application of the tincture of iodine to the fundus of the vagina at intervals of a week, with biroglyceride tampons almost daily At the same time counter-irritation applied to the iliac region by means of blistering was faithfully pursued Nothing proved of more than temporary benefit She began to lose flesh and fail in strength The fulness at the sides of the uterus had increased

She again entered my private hospital, and under anæsthesia I determined that the fallopian tubes were distended to the size of a small sausage, that the ovaries were also enlarged, and that the tubes, ovaries and ligaments were all adherent to one another by plastic lymph I advised laparotomy for the removal of the uterine appendages, the patient readily assented A week later I made an incision three inches in length through the abdominal wall—fully two inches in thickness—and came upon the omentum, which was also very fat This was adherent by its lower border to the pelvic tissues and organs, so that I was compelled to dissect it off on the right side before I could reach the uterus with my finger Everything, fallopian tubes, ovaries, broad ligaments, uterus, omentum and intestines were so adherent and matted together that it was difficult to differentiate between them The tubes were greatly distended and contained, the right, pus, and the left, serum The fimbriated extremities were glued to the lateral pelvic walls The ovaries were as large as a good-sized hen's egg, and were closely adherent to the posterior surface of the broad ligaments I dissected with my fingers, two being introduced until the right tube and ovary were released when they were drawn to the incision, ligated and removed The left tube and ovary were released with still greater difficulty, but I finally succeeded in ligating and removing them Considerable hæmorrhage occurred during the operation, and it was necessary to place a number of ligatures The abdominal wound was closed with eight silk sutures The operation occupied more than two hours The patient slept four hours before she returned to consciousness, and awoke without the slightest nausea, which both she and I dreaded very much from previous experience There is not much to say concerning the after treatment, for she did not require much Her temperature never rose above 100°, and she made an uninterrupted recovery She went home at the end of five weeks, and has been free from the old pain in the iliac region since four days after the operation

Dr B F Baer also exhibited

A SMALL FIBROUS TUMOR WHICH HAD UNDERGONE CALCAREOUS DEGENERATION

Mrs L , æt 60 years, of Lancaster Co , Pa , a patient of Dr J H Musser, has had two children and two miscarriages She had been treated for uterine hæmorrhage a number of times during the last fifteen years She continued to "menstruate" until she was fifty-seven years of age One year afterwards she began to suffer from severe uterine tenesmus, which was soon followed by a severe attack of "flooding" After this she had frequent recurrence of the hæmorrhages, up to the time of the removal of the cause The case had been looked upon as one of cancer, and had been abandoned to the fate which attends that dread disease, but she lingered on and finally came under the care of Dr Musser, who found on examination that the cervix at least was not cancerous Through his kindness I saw the lady at her home in September, 1885 I must confess that when I entered the room I was almost on the point of quietly saying to the doctor that I believed his patient had cancer She had a marked cachectic appearance, and there was an odor very like that of cancer I advised that a thorough investigation be made with the patient under ether *I found the cervix* smooth and soft, the os slightly patulous, and there were several mucous polypi hanging from it There was also a fœtid muco purulent discharge which seemed to come from the cavity of the uterus I removed the polypi and then carefully passed the sound into the uterine cavity, it was large and filled with numerous soft bodies, vegetations, except at one point at the fundus Here a mass was detected which was as hard as marble, and gritty I next dilated the cervix with my steel dilator—which was easily done because the tissues were so soft and dilatable—and passed my finger into the cavity The finger confirmed what the sound had led me to infer I now removed, with the dull curette, all of the fungous vegetation, enough to fill a large spoon in the aggregate, and then again introduced my finger and found that the hard mass was imbedded in the uterine wall and pedunculated I endeavored to remove it with my finger, and failed, I then pried it out of its nest with one blade of a polypus forceps It proved to be a fibroid tumor which had undergone calcareous degeneration I cauterized the entire surface of the uterine cavity with fuming nitric acid The patient has had no hæmorrhage since

This case is valuable scientifically because it shows the fallacy and danger of neglecting cases of metrorrhagia first, on the theory that the hæmorrhage is due to the change of life, and therefore physiological, and second, on the supposition that because the hæmorrhage came on so late in life it must necessarily be the result of malignant disease and be permitted to run its course unmolested Untold suffering and loss of life has resulted from this want of action I have so recently expressed my views on this subject in a paper on "The Significance of Metrorrhagia recurring about and after the Menopause," *Am Jour Obstetrics*, May, 1884, that I refrain from further comment here

Dr Parvin, remarked that the last case reported by Dr Baer illustrates the importance of a careful local examination in severe uterine hæmorrhage, since in almost all cases such hæmorrhage is sympathetic

Hippocrates was probably the first to observe the discharge of stones from the vagina He mentions a Thessalian servant who twice passed from the uterus what would now be regarded as uterine fibroids which had undergone calcareous degeneration I have seen in one case in a post-mortem examination between thirty and forty calcified uterine fibroids

Quite recently there came to my knowledge through a medical friend, the history of a case which very strikingly illustrates the difficulty of arriving at a correct diagnosis in severe ovarian, then uterine pain A married lady, about thirty-five years of age, and the mother of three or four children, was attacked with sharp pain in one of the ovaries, the pain occurred in violent paroxysms during several months, baffling alike the diagnosis and therapeutics of competent professional gentlemen, then suddenly ceased But while the ovary was relieved, equally severe suffering came in the uterus, it persisted several months, and only ceased with the discharge from the organ of a sewing needle

Dr Charles M Wilson could not understand how Dr Baer could make out his diagnosis in the case first described with two inches of fat in the abdominal wall, how could slightly enlarged ovaries and tubes glued down by lymph deposits be detected? He felt sure he could not do it himself

Dr Parrish said the diagnosis of such cases is at all times difficult, but the history of the case, with the aid of the examination, will make the examination almost certain, sufficiently so to warrant an exploratory incision Calcareous degeneration, in fibroid uterine tumors in old women, is frequently found in post-mortem examinations The calcareous mass may be as large as a child's head

Dr Baer, in closing the discussion, remarked that the great difficulty of making a diagnosis was an inducement to present the case before the Society He had been eight months in making the diagnosis, and finally operated with hesitation and many misgivings The pains were chiefly ovarian, but at first he contented himself with repairing the cervix and endeavoring to promote absorption of lymph deposits, and although there was improvement, the ovarian pain remained When the patient returned, the cylindrical mass on the left side was ten inches in diameter, and could be outlined per vaginum, the ovary was as large as a hen's egg This I could determine by examination under ether, and on the right side a hard tumor could be felt This proved to be the thick walled tube filled with pus, it was circumscribed and attached to the broad ligament I felt sure about the diagnosis, but the adhesions made me hesitate long before yielding to the desire of the patient for an operation

---

AMERICAN PUBLIC HEALTH ASSOCIATION

Thirteenth Annual Meeting, held at Washington, D C, December 8, 9 and 10, 1885

(Continued from page 48)

Thursday, December 10—Third Day

Evening Session

Dr S H Durgin, of Boston, submitted the report of the committee on

DISINFECTION AND INDIVIDUAL PROPHYLAXIS AGAINST INFECTIOUS DISEASES

The first prize for the essay on this subject was awarded to Dr George M Sternberg, U S A

The second prize for the essays on *The Preventable Causes of Disease, Injury and Death in American Manufactories and Work-Shops, and the Best Means and Appliances for Preventing and Avoiding Them*, was awarded to Dr Geo H Ireland, of Springfield, Mass

At the conclusion of the reports of the committees the President introduced Mr Henry Lomb, of Rochester, who, he said, out of his comparatively small means, had conferred an immense favor upon sixty million people

Dr J S Billings spoke in terms of great praise of Mr Lomb and the compliment he had offered this Association, and moved that Mr Lomb be invited to take a seat upon the platform, and that he be elected a life-member of the Association This was done by a unanimous rising vote

The President announced that Mr Lomb would continue the amount unappropriated by the Committee (which amounted to $1700) for another year, with such change in any of the titles of papers as the Executive Committee might decide upon

Dr D A Sargent, of Harvard University, as Chairman of the Committee, then read the

REPORT OF THE COMMITTEE ON SCHOOL HYGIENE

The uneven manner in which physical and mental training are distributed is shown at once by the fact that those schools which have large play grounds attached and a river on which to row boats, never fail to advertise that fact, while those not having such advantages give their attention to theoretical training As a consequence, there are dissatisfactory reports from all sides Here we have all muscle and no brain development, and the superior mental attainment with nervous prostration The committee thought that course of training should be universally adopted which actual observation had proved to most thoroughly distribute physical exercise in proper proportion with the mental exercises of education The youth should also be thoroughly taught the first laws of the body, the necessity of cleanliness pure air in houses, etc , and not only taught these principles but shown how to practically use their knowledge

DR JOHN MORRIS, of Baltimore, then presented

THE REPORT OF THE COMMITTEE ON DISPOSAL OF THE DEAD

This subject has attracted much attention and been thoroughly discussed No doubt the general acceptance of the germ theory and the surprising discoveries of Darwin and Pasteur concerning the life and office of ground worms have materially influenced public thought in this matter Even those who do not favor cremation admit the necessity of reform in the present mode of burial Cremation is gaining ground in Europe A bill legalizing the process has been introduced in the French Chamber of Deputies, and is supported by such advanced thinkers as Paul Bert and Tony Renelon It is proposed to build a large crematory near Paris, and an engineer has been sent to Italy to study the best plans Three hundred and ninety-six bodies were cremated in Italy during the past year

A valuable contribution to the subject of inhumation has been recently made by two French writers The deductions therefrom are that in every cavity dug where organic matters are decomposing there are produced two phenomena which jeopardize the lives of those exposed to their influence, viz , the great and rapid disengagement of carbonic acid, and notable diminution of oxygen in the air

The Spanish Cortes has passed a bill allowing cremation The dreadful scenes in Granada, where hundreds of bodies laid for days uncovered during the late cholera epidemic, no doubt influenced the the legislation Germany is also adopting cremation, and the Berlin *Verein fur Innere Medicin* has declared that the best authorities in the field of hygiene have clearly proved that cremation is the safest preventative against the spread of contagious diseases by corpses There were 186 cremations in Germany last year In Denmark the subject is exciting marked attention At the meeting of the Medical Sciences, held at Copenhagen, in 1884, Dr Lenson presented a report on the cemeteries of Denmark, and their influence on the public health After a most thorough and scientific investigation into the public health of Copenhagen he concludes that it has been repeatedly demonstrated that pestilential diseases have been traced to the use of water from streams or wells contaminated by the presence of cadaveric decomposition

Other schemes for the disposition of the dead have been urged Mr Pratt, of London, proposes to bury dead paupers in cheap coffins, to be cemented with concrete and used in building a breakwater at Heine Bay M Kergovtatz, of Brest, proposes rubbing a corpse with a chemical solution and plunging it into a metallic bath, investing it with an air-tight covering Gold, silver or copper could be employed, and the dead could thus be utilized as statuary

After reviewing in an exhaustive manner the testimony of medical experts, and setting forth the many and grave objections to the present mode of burial, Dr Morris said If incineration were accepted all these evils would be arrested It is generally admitted that this process should be adopted in all great epidemics and after battles, but it would be wise to extend it to cases of zymotic diseases, such as cholera, small pox, scarlet fever, and diphtheria These poisons are preserved for years, and at certain times under certain conditions vent their destructive force on the human race

FRIDAY, DECEMBER 11—FOURTH DAY

The Association was called to order at 9 55 A M , PRESIDENT REEVES in the Chair

The following were appointed the

COMMITTEE ON DISINFECTION OF RAGS

Drs G M Sternberg, J H Raymond, A R Smart, V S Vaughan, G H Rohe, Joseph Holt, and S H Durgin

The Committee on Disinfectants was continued for another year, and to it was referred Dr J H Raymond's resolution on *Disinfection of Sewers*

Drs Thos F Wood, of N Ca , S W Abbott, of Mass , and Smith Townshend, of Washington, were appointed a

COMMITTEE ON VACCINATION

The Executive Committee recommended that the

CONFERENCE OF STATE BOARDS OF HEALTH

be invited to become a section of the Association, privileged to elect its own Chairman and Secretary, and that the Executive Committee arrange for its meeting one day earlier than the regular session, and that one day, or a part of a day be set aside for the sole consideration of questions relating to State Boards of Health Adopted

ADDITIONAL LOMB PRIZES

It was then announced that Mr Lomb had decided to offer four additional prizes for the best plans for houses to cost $600, $1000, and $1500 These prizes are to be $100, $75, $50, and $25 each

A Committee of three, with Dr J S Billings as Chairman, was appointed to prepare a form for

YEARLY, MONTHLY AND WEEKLY MORTUARY REPORTS

The Advisory Council reported that it had considered the advisability of soliciting

GOVERNMENTAL AID IN PROSECUTING RESEARCHES INTO THE CAUSATION OF INFECTIOUS DISEASES,

and stated that the National Government had not made adequate provision for the study of such questions, either in the Army or Navy Departments, and it recommends that Congress be urged to appropriate necessary funds that these Departments may be properly equipped

The Advisory Council also endorsed Dr Joseph Holt's recommendation for a

A SCIENTIFIC COMMISSION TO INVESTIGATE YELLOW FEVER

The following were elected

OFFICERS FOR THE ENSUING YEAR

President—Henry P Walcott, of Massachusetts
First Vice-President—T S Covernton, of Toronto
Second Vice-President—G B Thornton, of Memphis
Treasurer—J Berrien Lindsley, of Nashville
Secretary—J Irving Watson, of Concord, N H

Toronto, Canada, was chosen as the place for the next annual meeting, on the first Tuesday in October, 1886 Memphis was strongly urged as the place of meeting, and the Association will probably go there in 1887

CHICAGO MEDICAL SOCIETY

Stated Meeting, January 4th, 1885

THE PRESIDENT, C T PARKES, M D , IN THE CHAIR

DR D R BROWER read a paper entitled

THE EFFECTS OF COCAINE ON THE CENTRAL NERVOUS SYSTEM

(See page 59)

DR E L HOLMES opened the discussion by saying that the South American Indians ate large quantities of the coca leaf, without injury

DR D R BROWER said that in the early history of Peru the Catholic Church authorities sought to stop the use of coca in that way because of its deleterious effects upon the people But it was impossible to do it, they used it clandestinely, and the prohibition was withdrawn Dr Brower said that used in that way the result was a similar condition of mental deterioration as that mentioned in the paper, while these people were capable, under its influence, of performing muscular efforts in climbing the hills and mountains of that country, they were a puny, sallow, emaciated people, with intellectual capacity very little above the brute creation

DR E L HOLMES said that his experience had been wholly in connection with local applications on the eye He had seen one case, in which he had placed cocaine in both eyes for an operation, in which it was followed by considerable depression and nausea through the night, but no alarming symptoms He had twice used it in his office for strabismus, placing a not unusual quantity in the eye, where the patient felt sick and almost slipped out of the chair, and the operation was performed with the patient lying on the floor, but he suspected it to be a fit of fainting at sight of the instruments He had found from experience that very minute doses will be absorbed, but had never seen the slightest influence from the amount which is usually given in the eye It is exceedingly satisfactory in performing operations, and in removing little motes and pieces of iron or steel lodged in the cornea

DR C W EARLE said it appeared to him that when Dr B was in the Washingtonian Home he got along with a very small amount of the drug, very much less than Dr Earle had anticipated it would be possible for him to get along with Dr B had informed him that he had been in the habit of taking from 15 to 18 grains a day After he went into the Home, the first three days he took less than grs iij, and after that time did not take any He regained his appetite very well, and appeared to improve in every respect up to the time that his wife and brother or brother in law came from Canada to visit him, then he was seized with an idea that he must go home, or at least to Canada, and from that time he was uneasy and did not do well Dr Earle said that it seemed to him that there had been more said in regard to the use of cocaine than there was any use in saying While Dr Bradley was at the Home he was not unlike an ordinary opium eater, they will all lie, and he would lie, and his friends would lie The depression which followed withdrawal was somewhat similar, although there were none of the symptoms of dizziness, or nausea and sneezing, which are usually present after the withdrawal of opium

DR SARAH HACKETT STEVENSON said that she was surprised at the deleterious effects found by Dr Brower from the use of cocaine in hay fever She had had a number of cases in which it was used, without any of the symptoms mentioned in the paper She used a 4 per cent solution, applying with a camel's-hair brush, or simply by snuffing Dr Stevenson said she had used cocaine a great deal hypodermically in surgical operations with good effect so far as anæsthesia was concerned

DR W F COLEMAN said there are two lines of practice in treating the narcotic habit, to cut a man off from his drug completely, at once, or to taper him off He believed in depriving him of the drug at once If he found a man being poisoned he would not add another dose, but stop it immediately He knew nothing practically of the internal use of cocaine, but was surprised at the grave effect mentioned by Dr Brower Cohn Mueller asserts that he kills a frog with four tenths of a grain, but to human patients he gave indiscriminately 5 grains and it produced no perceptible ill effect Locally Dr Coleman had had some experience with the drug, and there is this point about its immediate effect, it relieves pain in acute otitis but it is a grave question whether it does not prolong the case, and while it relieves pain it is doubtful if it is better than hot water or other remedies In its application to the eye there was not this objection, it produces anæsthesia and allows almost any operation to be performed without pain, it does not prolong congestion, and gives permanent relief

DR D W GRAHAM said that he noticed Dr Brower quoted a case reported by Dr Burchard in the *Medical Record*, in which a patient sustained loss of consciousness and stoppage of the pulse after an injection of four-fifths of a grain of cocaine Dr Graham doubted very much whether the bad effects were due to cocaine, we get the same effect in many patients by injecting water, or by showing them the hypodermic syringe, and he thought it probable that it was simply a fainting fit There was nothing in the report that would lead to any other conclusion except that Dr Burchard says it was the result of the injection of cocaine Dr Graham doubted the conclusion and thought it unreliable

Dr F M Weller said he had had some experience in the use both of cocaine and the fluid extract of coca He had never used such large doses as those mentioned, but had seen that very large doses of the drug would produce unpleasant symptoms about the head, dull heavy headache, something like doses of other narcotics Hypodermically he had used as much as five grains at one time without any unpleasant effects whatever He was inclined to think that the real difficulty in some of these cases was that some other circumstance was overlooked It seemed to him that some idiosyncrasy might exist that would make one peculiarly susceptible to this kind of narcotic, and it would hardly be reasonable to charge it all to cocaine His reading of the history of the use of the drug in South America, where it originated, led him to think that it could be used a long time without injury He thought one lesson is to be learned from the paper, viz, that no drug should be continued beyond the time of its necessity That principle laid down and strictly adhered to, the patient would never suffer from the deleterious use of any drug

Dr D R Brower in closing the discussion, said that Dr B bought cocaine wherever he could get it, and he did not know what preparation he used The other physician mentioned in the paper used Merck's cocaine altogether He used it for hay fever and took five grains by inhalation every day for ten days Dr Brower said that he did not suppose that such disastrous effects as occurred in these cases and others, would result unless there was some weakness of the nervous system, he thought possibly a person perfectly robust and with a well-governed nervous organization could take cocaine with impunity, but a person with a nervous temperament could not use this drug continuously without some such results following Dr Brower said his plan of treatment was that of gradual withdrawal, as well with opium and chloral as with cocaine This plan could be followed with less inconvenience to the patient Dr Brower said he was well aware that cocaine was one of the most valuable additions to the therapeutics of hay fever, it had been administered in perhaps thousands of cases in Chicago, and with few disastrous effects As to the case reported by Dr Burchard, the Dr reported it as a case resulting from hypodermic injection, and it struck Dr Brower as being a reasonable result in a very susceptible individual, but it might be that the man had a fainting fit The case was reported in the *Medical Record* of Dec 5, 1885, it impressed Dr Brower as being undoubtedly a case of cocaine poisoning

CHICAGO GYNECOLOGICAL SOCIETY

Stated Meeting, Friday Evening, Nov 27, 1885

THE PRESIDENT, DANIEL T NELSON, M D,
IN THE CHAIR

(*Continued from page 52*)

Dr Charles Warrington Earle presented for Dr Joseph Haven

A TERATOM, CORRESPONDING IN DEVELOPMENT TO THE THIRD MONTH, AND BEARING AN ASSERTED RESEMBLANCE TO A PUP

The following history was read Dr Haven had attended the family of Mrs H for the past four years During this time he had had occasion to notice that the younger daughter was a person unusually strong in her likes and dislikes, of a nervous temperament, slight build, yet a sensible, educated, and attractive girl On the eighth of September, 1885, this young lady in company with her sister, called at his office to consult him with reference to her condition He made the following entry in his case-book, as the result of her visit "Mrs D, 19 years old, married one and one half years, always regular as to her courses up to July 21, since then no show Physical signs point to pregnancy in the sixth week" A few days later he saw her again She was nervous and highly excited—almost hysterical She told him in an excited manner that a dog had jumped on her, and that she "hated dogs" She complained of pain in the abdomen, low down

From that day until the 1st of November, Dr Haven saw her several times Each time she was threatened with miscarriage, and each time she declared she was positive she could never carry that child Her husband and sister told him that, asleep or awake, her mind seemed to dwell continually upon that dog That she daily wondered if the child would be marked Mr D said that ever since he has known her she has been afraid of dogs, she would always cross the street rather than meet one, and he has often jokingly refused to take her out with him, telling her, as an excuse, that they might see a dog, and she would make a scene

On the night of November 1, the husband roused Dr Haven, desiring him to go over and see his wife, thinking it to be only a repetition of former attacks An examination proved that Mrs D was about to lose the contents of the uterus She was flowing constantly The os had dilated slightly and Dr Haven could just reach the presenting part The history of the miscarriage was the usual one, and the result is seen in the specimen presented She insisted on seeing the fœtus and declared it to be the image of the dog that had frightened her

Dr Charles Warrington Earle presented

SPECIMENS FROM A CASE OF ARTIFICIAL ABORTION

The fœtus corresponded in development to the fourth month of pregnancy, and was not decomposed It was closely enveloped in the membranes, and entire absence of the *liquor amnii* was noticed Hæmorrhage into the placenta and decidua was not observed

The following history of the case was read:

Mrs. F., American, has given birth to five children, the youngest 20 months old, labors always normal, has a history of anæmia for some months', if not years', standing, last menstruation ended May 20, 1885, in June had a very slight discharge of blood, during the weeks following she would occasionally lose a small amount of blood, at other times there would be profuse hæmorrhage lasting twenty-four hours. She had at one time a white, sticky discharge, something like the albumen of an egg. October 1, began to flow constantly with some pain in back and sides, particularly the left. Was seen by Dr. St. John October 12, at which time he administered the usual styptics with rest. She continued to flow, with pain, for another week, when hæmorrhage was so severe and prostration so pronounced, and with the suspicion of *placenta prævia* it was decided that temporizing means should cease. After consulting with Dr. Earle, it was decided to induce labor. A catheter was introduced and allowed to remain twenty-four hours, when pains came on and patient was delivered October 17, 1885. During the entire period of gestation the woman could not detect the usual signs of her former pregnancies. She made a good recovery and menstruated November 20. There had been no discharge of water perceptible to the lady during the entire period of pregnancy.

Dr. W. W. Jaggard thought Dr. Earle's case was a typical example of the condition, technically termed *mummification*. The fœtus dies, and the fluid constituents of its body and envelopes are generally resorbed. Mummification is usually observed in connection with twin pregnancies. One child is usually perfectly developed, while the other is converted into a mummy-like object.

Maceration and *mummification* of the fœtus are observed when the membranes are intact; *putrefaction*, after rupture and entrance of air into the uterine cavity. Dr. Earle's case was probably not an example of that rare condition, abnormally small amount of amniotic fluid. There were no abnormal amniotic foldings, nor the fœto-amniotic bands described by Simonart.

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Insanity and Public Opinion—Double Popliteal Aneurism—Papilloma of the Bladder—A Large Calculus from a Boy's Bladder—The Mad-dog Scare—Typhoid Fever in Brooklyn.

At the last meeting of the New York County Medical Association Dr. J. R. MacGregor read a very elaborate paper on *Insanity and Public Opinion*, in which he referred to a number of ancient popular errors which still existed to a large extent, and pointed out the great need of a more enlightened sentiment in the community in regard to the matter.

This was followed by a paper on *Double Popliteal Aneurism*, by Dr. Ira B. Read. The case upon which it was based was one of great interest, as popliteal aneurism developed in the left lower extremity after a similar aneurism had been cured in the right, by ligation of the femoral artery. The second aneurism was treated in the same way, after an unsuccessful resort to pressure, which was also tried in the case of the first before operating. Having mentioned that both aneurismal tumors have now entirely disappeared, Dr. Read proceeded to discuss the etiology. In this instance, there was no history of a traumatic origin. The patient was a German about 30 years of age, of good habits, and with no suspicion of syphilis. The only external influence that he could fix upon as bearing at all on the case was the fact that the man, who was a grocer, was accustomed to go in his wagon to market every day or two and return with a load of groceries, and while thus engaged, the wagon would be so full that he was compelled to sit in a cramped position, with his legs flexed much beyond the point of comfort. "But," Dr. Read went on to say, "I cannot believe that this, without some internal predisposition, could have caused the trouble. If so, why are not the thousands of others who follow the same occupation similarly affected? Whether we look to age, sex, occupation, climate, or any external influence, I do not believe that we can assign any of them as primal causes in the production of aneurism. I believe we must look first to the condition of the artery itself. We will find degeneration, either atheromatous or calcareous, the cause of which we may or may not be able to discover. Having found this condition, I am willing to admit that age, occupation, or other conditions may act as exciting causes. From this, as a starting-point, I would say that those whose age or condition enfeebles them, those whose occupations most expose them, those who live in a climate which they do not well endure, would be most liable to suffer from aneurism." In the case in question, he found, as he had said, a possible exciting cause. There was also a possible predisposing cause. While there were no abnormal heart sounds, the action of the heart was at all times very violent, not in frequency, but in force, and all the medical men who saw the case recognized that it required a great weight to control the femoral artery. He would, therefore, say that in this case the excessive strain on the arteries, caused by an excessive action of the heart, was aided by the patient's occupation, as an exciting cause, in the production of these aneurisms.

In regard to the treatment of such aneurisms, he said that no method was devoid of great risk and responsibility. From his own experience he would lay down the rule that where compression can be made in the artery above the diseased portion, it should always be resorted to as a means of lessening the danger consequent upon ligation of the artery. In popliteal aneurism compression of the femoral below the profunda would cause the blood to knock more loudly at the door of the profunda, when it found that it could not gain admission to the femoral. "Thus," he said in conclusion, "it will gradually and surely distend the profunda and other smaller branches, and enable it more fully to carry on the work of the occluded femoral. If, in the meantime, you can succeed in filling the aneurismal sac with a clot, and thus effect a cure, so much the better, but if this result does not follow, and you must ligate the femoral, still, I say, so much the better. Thus may we carry to the limb below heat, nourishment, sensation, life, and thus give a wider berth to that dreaded sequel of ligation, death of the limb, and perhaps death of our patients.”

Dr. J. W. S. Gouley then presented several specimens of *papilloma of the bladder*, upon which he made some extended and instructive remarks, in the course of which he said that such tumors were not very common, but it was probable that they occurred more frequently than was generally supposed to be the case. As to their avulsion after opening the bladder through the perineum, probably the safest instrument for this procedure was that devised by Mr. Reginald Harrison, of Liverpool, in the use of which it was easy to avoid grasping other tissues beside the growth to be removed. In regard to the hypertrophy of the bladder not infrequently noticed in connection with such tumors, he said that whenever there was a foreign body or a growth of this kind in the bladder, concentric hypertrophy and contracture of the organ were apt to result, as time went on, from its continuous efforts to get rid of its contents by contraction. As to the cause of these papillomata, he believed that in each case there was some previous lesion which gave rise to the condition. This might be but a slight abrasion of the mucous membrane, caused, for instance, by a small calculus, which had afterwards passed away, but the granulations resulting from such an abrasion would be sufficient to afford a starting-point for the villous like growth. As to the intermittent character of the hæmorrhage in such cases, this was probably to be explained by the fact that the denudation of the membrane covering the growths which gave rise to the hæmorrhage was followed by an inflammatory process which blocked up the vessels, and thus prevented a further escape of blood. In reply to an inquiry whether he had in the diagnosis of these tumors made use of rectal examination, by introducing half the hand into the rectum, as recommended by some authorities, Dr. Gouley said that he had not, as he did not consider this procedure justifiable under ordinary circumstances, on account of the risk involved in it. Besides, it would be impossible to feel, through the thickened walls of the bladder, a soft growth of the character under consideration. A hard growth might be detected from the rectum, and in young subjects, where the prostate was so small, he was accustomed to practise digital exploration.

Dr. Joseph D. Bryant said that he had recently seen in consultation a case outside the State which he had every reason to believe was of the kind described by Dr. Gouley. At the time of his visit the patient was much prostrated, but he had advised perineal section as soon as his condition would warrant the operation. He said he would like to ask Dr. Gouley if there were not some definite symptoms which would enable us to make a diagnosis of papilloma of the bladder, as he thought it was now somewhat difficult to distinguish this from other vesical affections.

Dr. Gouley then expressed the opinion that a series of signs could undoubtedly be formulated which would be of sufficient diagnostic value to fulfil the requirements of the case. If there were a stone present, there might or might not be hæmorrhage. It was, however, very infrequent in young subjects, and, therefore, when hæmorrhage from the bladder occurred in an individual under 40, without any assignable cause, it was reasonable to suspect something of this sort. The peculiarity of hæmorrhage resulting from papilloma of the bladder was, that it came on at irregular intervals, and stopped spontaneously. Furthermore, the attacks increased in frequency and severity as time went on, and later there was cystitis, while the frequent contractions of the bladder in its efforts to expel this sponge like growth gave rise to concentric hypertrophy of its walls. But there was something better than symptoms, viz., a crucial test of the condition. In every suspected case it was the duty of the surgeon to pass an instrument through the urethra, and with it remove a small piece of the tumor, if any were present. By doing this and subjecting the portion of tissue thus removed to microscopic examination, he had now made the positive diagnosis of papilloma of the bladder in four cases. There was nothing new in this procedure, however, as Civiale had done the same thing fifty years ago. When there was any doubt about the diagnosis, an exploratory incision through the perineum he believed to be perfectly justifiable.

One of the cases described by Dr. Gouley was that of a young physician whom he first saw about six months ago. In this instance the diagnosis was made by removing a portion of the growth with a pair of small forceps, but the doctor had as yet declined to have the operation of cystotomy performed. There had now been no hæmorrhage for a considerable time in this case, but he felt confident that it would inevitably recur in time.

At the conclusion of the discussion of Dr. Gouley's remarks Dr. T. R. Varick, of Jersey City, presented a very large stone which he had recently removed from the bladder of a boy 14 years of age. It weighed seven ounces and four scruples, Troy weight, measuring six and three-fourths inches in one circumference and five and one half inches in another. The patient had borne the operation well, and was now in a fair way to recovery.

One of the morning papers has taken a very sensible stand in protesting against the mischievous and demoralizing “mad dog scare” which has been wrought up as the consequence of the biting of the children in Newark by a stray dog. Pasteur's experiments with inoculation and the determination to send the children to Paris gave the cases an unusual interest, but there was no ground for the senseless excitement that has been aroused. It is possible that this dog was mad, and it was perfectly right that every precaution should be taken against the possible results of the bites inflicted by him, but there is not the least evidence of an epidemic of rabies among dogs, or any greater liability to the malady now than at any other time. It is by no means certain, however, that even this one dog really had the disease, and not a single other case has been substantiated Yet, "if a dog has a fit now, all the people of the vicinage are scared, and he is killed and reported rabid Throughout New Jersey every stray cur is stoned into desperation, and shot down and added to the list If a person happens to be bitten by any ill natured or irritated creature of the canine species, he at once imagines himself in danger of hydrophobia, and is in a fair way to work himself into convulsions from sheer fright The result of all this folly is an infinite deal of discomfort to people whose apprehensions are excited, and no end of thoughtless cruelty to innocent and harmless dogs" The craze has extended in a somewhat mitigated form to this city, and the Board of Aldermen, responding to senseless and frantic appeals from irresponsible sources, has furbished up its neglected dog ordinance, and the pound is to be reopened for the encouragement of dog stealing

Charles Kaufmann, of Franklin, N J, who was bitten by a dog on November 21, and Ludwig R Sattler, a veterinary of Orange, N J, who was bitten December 13, have both arrived in Paris, and been inoculated by Pasteur, but there is no sufficient evidence to show that the dog actually had rabies in either instance

There were reported between November 1 and December 15 at the Health Office in Brooklyn 165 cases of typhoid fever, with a mortality of about 50 cases, while the average annual number of deaths from typhoid in that city for the last ten years has been eighty-five A partial house-to house inspection has already shown the existence of defective and dangerous plumbing in no less than 609 houses in the affected districts, but it is said that this inspection must now be discontinued for lack of funds The health authorities ought certainly to be upheld in their efforts to seek out and remedy the causes of such filth diseases, and if the facts of the case are plainly presented to the public, it would seem that ample means ought to be promptly furnished for carrying on the good work P B P

LETTER FROM PHILADELPHIA

(FROM AN OCCASIONAL CORRESPONDENT)

The Annual Meeting of the Societies—Election of Officers by the County Medical Society—Election of Delegates to the Association Meeting—The Appointment of Dr Flint to deliver the Address in Medicine before the British Medical Association—Dr Philip Leidy

As usual, this the first of the new year finds our medical societies engaged in the annual selection of their officers The daily papers are also filled with the names of medical men selected as attendants for the various hospitals and other charities for which our city is justly celebrated Perhaps the most interesting and most truly exciting meeting thus far held, was that of the County Medical Society This is the only organization in our city which is entitled to send delegates to the State and National Associations At the annual election on Wednesday afternoon last, there was an unusual display of feeling in reference to the action of the American Medical Asssociation in New Orleans last May It was whispered about for a few days prior to the meeting, that some effort would be made to commit the County Society to the side of the malcontents, and thus enable them to succeed in their efforts at obstructing the meeting of the International Congress of 1887

Last October, in accordance with a special law of the County Society, which says "Nominations for delegates shall be made at the stated meeting in October by a nominating committee named at the stated meeting in June, which committee shall present a ticket of candidates for election to the different delegations of the Society," this nominating committee presented a ticket of nominations of delegates to the American Medical, and the State Medical Societies This report was received without a dissenting voice, and, as usual, a copy was sent by the Assistant Secretary to each member of the Society, with the notice for the January meeting A day or two prior to this meeting, some of the members received a circular asking them to support a different ticket, to quote their words, "Nominated in the interests of general professional harmony" It does not appear as though any effort was made either by the members of the nominating committee or by their nominees When the Society was assembled, the first move was to suspend the order of business in order to introduce, in violation of the by laws, a ticket not named by the nominating committee, this was on the motion of Dr Agnew, who, seemed to be the leader of the opposition to the regularly named ticket This proposition was opposed by some of the oldest members, and especially by several of the ex-Presidents, as not in order Now commenced a most remarkable scene Hisses, jeers, cries of "order" were hurled full in the faces of the little party thus standing up for the rules and asking that they be obeyed The President seemed utterly powerless, or disinclined to stem the flood that carried all before it The "Ayes" and "Nays" were demanded and yielded to with great reluctance The call showed that out of a membership of over four hundred, about one hundred and fifty were in favor, to fifty against the substitution of the new ticket Of course, after this vote, the ballot was a mere form, and resulted in about the same figures, or even with less opposition, owing to the fact that many now left the room disgusted

During the balloting Dr Agnew offered a series of resolutions condemning the action of the American Medical Association, and requiring the Philadelphia delegates to vote for a reversal of its action These resolutions will no doubt be shortly sent you by the Secretary of the Society It was fully and even boastfully acknowledged by several that they had come to carry their point, even if it required the setting aside of all the laws of the Society While some of these gentlemen publicly announce their adherence to and regard for the Code of Ethics, yet more than one expressed a belief that this was the entering wedge toward the adoption of the New Code, or the destruction of the Medical Society, and one even hoped for these results, as he desired to be free It was suggested in the conversation which followed in the little group around him, that his proper plan was to resign, but he seemed to prefer to wait within the lines while constantly chafing at the restriction imposed upon him

The leaders, and those who spoke in behalf of the opposition, announced themselves as "pacificators," endeavoring to promote the harmony of the profession, but the remarkable method which they have adopted has thus far been productive of a decidedly different effect It is the cause of most bitter talk in every accidental meeting of medical men, and the daily papers are jocosely predicting in this disagreement of the doctors, a great increase in the sales of patent medicines

It is a well known fact, announced at the meeting, that at least one gentleman on the ticket thus elected is not a member of the County Society, and it is a question whether several were elegible by reason of non payment of dues The question of the legality of this election may yet be brought before the Censors, or even require a decision of the Judicial Council

A dinner was given to Dr Samuel R Knight, the efficient superintendent of the Episcopal Hospital, on Thursday evening, at Warmley's, No 931 Girard avenue More than forty physicians sat down, and the occasion was a very pleasant one

The appointment of Dr Austin Flint to deliver the Address in Medicine before the British Medical Association at its session next August, has been a source of much gratification to his numerous friends in this city

Our Board of Guardians have just deposed Dr Richardson as Resident Physician of the Insane Department of our Almshouse, and elected Dr Philip Leidy, a brother of the well known anatomist, Prof Joseph Leidy Dr Leidy seemes to be entering upon his new duties with an earnest determination to prove of service to his unfortunate wards It must be remembered that this department has more than one hundred patients beyond its fullest capacity for the proper care of the insane More than half of the patients are necessarily compelled to sleep upon the floor Dr Leidy believes that many can be better accommodated at their homes or in the Almshouse proper "Some have been in this department for years without having manifested any marked evidence of insanity " Dr Leidy found that many had been unnecessarily deprived of out door exercise Let us hope for him the fullest success in his benevolent work

SPECTATOR

January 9, 1886

INOCULATION FROM THE PUSTULE OF TARTAR EMETIC TO PREVENT SMALL-POX

To the Editor of the Journal

Dear Sir —With similar facts that might be cited, the interesting observations of Dr de Mello, of Rio de Janeiro, and Dr B S Woodworth, of Ft Wayne, Ind , in recent numbers of The Journal, upon the spontaneous origin and identity of yellow fever with malarial disease, support the views presented in my paper on the "Unity and Nature of Morbific Poison," in the first volume of The Journal for 1885, p 174, and in my work on the "Basic Pathology and Specific Treatment of Zymotic, Septic, and Allied Diseases," in which evidence is adduced of the general unity of cause and nature, with *de novo* origin, of all such maladies, and the proper means for their prevention and treatment

But what I desire to invite special attention to at present, is with regard to the apparent identity of the tartar emetic with the vaccine and small pox pustule, both in appearance and prophylactive power against that destructive malady, which Dr Woodworth so specifically refers to in his incidental statement of the close resemblance or mimicry of the first and last, and the probable protective value of the former with vaccination Now, many years ago it was stated in some of the journals, that a German investigator, whose name (and the publication) I do not clearly recall, had experimentally shown that inoculated pus from the tartar emetic pustule produced a pustule so much like that from the vaccine virus that they could not be distinguished from each other, and, what is more remarkable, afforded the same protection against variola as vaccination itself If my memory serves me aright, he thus inoculated and protected quite a number of men, women and children successfully, as demonstrated by their subsequent exposure to and preservation from the contagion of small pox

These facts or observations and speculations open up a new and wonderful field of investigation, with promising usefulness of the highest value in practical medicine—both preventive and curative—that should be taken advantage of by every physician having an opportunity, which is often presented in the casual outbreak of isolated cases or epidemics of this dreadful variolous malady, in the absence of any vaccine virus, and the adequate means it affords of protecting by vaccination the unfortunate people exposed thereto Now, as it is the bounden duty of every practitioner to resort to all possible means of protection in such an emergency, it would be obligatory thereupon to utilize this promising safeguard, and further test the matter by inoculating with the pus from the tartar emetic pustule, as well as by the production of the latter alone, as suggested by Dr Woodworth, it being apparently identical with that of variola, "that pustules produced by tartar emetic *may* be as good a preventive of small pox as the vaccine virus " If, however, this be true, it would necessarily follow that those who were pustulated with tartar emetic for other purposes would thus be protected against variola, which is, hence, an important subject of inquiry Therefore, as this prophylactive method has been experimentally tested with asserted success to a certain extent, it is not only a right thing to do, but even imperative upon every member of the profession, in all cases of necessity to thus act on the probabilities and give exposed persons the benefit of the doubt for their protection from variola by this form of tartar emetic pustule inoculation, until the more certain mode of prophylaxis could be secured by vaccination, especially as the means therefor are always at hand, and it is a simple, safe, inexpensive, and convenient plan of probable protection against one of the direst maladies

But, independent of such contingencies, this question could largely, if not positively, be determined by comparative experimentation on the lower animals. Thus, for instance, tartar emetic pustules could be developed on, as well as the pus therefrom inoculated into the udder of a heifer, followed, after the healing and subsidence of the consequent local and constitutional effects, by the insertion of variolous or vaccine matter to ascertain whether either or both would "take." Or either of the two, variolous or vaccine virus, with the pus or pustule of the tartar emetic, might be introduced simultaneously in different parts of the same udder or animal to determine whether there was any relative controlling influence exercised upon each other. The same plan might be adopted in human beings, as in double or multiple vaccination, with the latter first and then tartar emetic pus or pustule, and conversely, or both at the same time in different parts of the body.

Thus, by these and other safe experiments, this important question of the protective efficiency of tartar emetic pustule or pus against variola might be settled, and if true might be an invaluable discovery, besides would doubtless develop collateral knowledge of the greatest practical value to both mankind and the inferior creatures. At all events, it opens up a new field for investigation, which those who have the the opportunity could cultivate with advantage to themselves, science, humanity, and the lower forms of life.

GEO. J. ZIEGLER, M.D.

Philadelphia, January 9th, 1885.

BOOK REVIEWS.

A MANUAL OF OPERATIVE SURGERY. By LEWIS A. STIMSON, B.A., M.D., Surgeon to the Presbyterian and Bellevue Hospitals, New York, etc. Second Edition. 8vo, pp. xxiv, 506, 342 illustrations. Philadelphia: Lea Brothers & Co., 1885. Chicago: Jansen, McClurg & Co.

Dr. Stimson tells us in his preface that in preparing the second edition of this work he has sought to indicate the changes that have been effected in operative methods and procedures by the adoption of antiseptic methods, and to describe such additions and substitutions as have been favorably received, the chief alterations and additions being found in the passages treating of excision of bones and joints, and of operations on the peritoneal cavity. The reputation of the author is quite sufficient guarantee that the work has been well done, but to see how well it has been done we must read the book. In the way of a manual of operative surgery it is all that can be desired.

A TEXT-BOOK OF PHARMACOLOGY, THERAPEUTICS AND MATERIA MEDICA. By T. LAUDER BRUNTON, M.D., D.Sc., F.R.S., F.R.C.S., etc. Adapted to United States Pharmacopœia by FRANCIS H. WILLIAMS, M.D. 8vo, pp. 1035. Philadelphia: Lea Brothers & Co. 1885. Chicago: Janseh, McClurg & Co.

This work merits praise. Its arrangement is somewhat novel, and adapts it especially for use by students of medicine who are not only trained by didactic lectures but also by laboratory exercises on the physiological action of drugs.

In order to save repetition the author devotes the first part of the book to a description of the methods employed for discovering the physiological action of drugs upon the various organs of the body. Not only does this enable him to avoid repetition, but also to contrast clearly the action of various drugs on the same tissue or organ. The first chapters of this section are devoted to a consideration of "Circumstances which Affect the Action of Drugs," such as fasting, habit, climate, etc., and the action of drugs on blood and the lower organisms. In the remaining chapters the action of medicines upon individual tissues and organs is considered. Chapters are devoted to the action of drugs on muscles, nerves, spinal cords, brain, special senses, respiration, circulation, digestion, tissue change, excretions and generative system.

This portion of the work is excellent. Much information is given of a purely physiological character. This, however, is quite necessary in order to understand readily the changes produced by drugs.

The last half of the work is devoted to a concise consideration of the subjects of Materia Medica. The preparations, properties, tests, doses, actions and uses of each drug are given. Drugs belonging to Inorganic Materia Medica are first described, then those of Organic, Vegetable, and lastly Animal Materia Medica. The two last groups are taken up in the order of their natural classification.

The author is so well known for careful and faithful work that further comment is scarcely necessary. The book can be used advantageously as a text-book in any college, but to the best advantage in those in which instruction is given in the physiological laboratory as well as in the lecture room.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By CHARLES HILTON FAGGE, M.D., F.R.C.P., Physician to, and Lecturer on Pathology at, Guy's Hospital, etc. Vol. I. 8vo, pp. xv, 1040. Philadelphia: P. Blakiston, Son & Co., 1886. Chicago: W. T. Keener.

Since all who know anything of Dr. Fagge know that he was a very learned man, and a hard and most methodical worker, we must regret that this work was not published under his immediate supervision. The book is a strange mixture of satisfactory information and unsatisfactory generality. It is painful to be obliged to say this of the work on which the lamented Fagge spent the last twelve years of his life. It is in the matter of treatment that the work is most unsatisfactory, in dealing with other things the book is almost cyclopædic in the information contained in it. The first volume treats of "General Morbid Processes," "Specific Diseases," "Diseases of the Nervous System," and of the "Respiratory Organs." The arrangement of the chapters, sections and subsections is deplorably bad, reflecting alike on the editor and the publisher, and the first volume of 1040 pages appears without an idea. No definite order seems to have been followed out in treating of diseases or any one disease

In spite of these defects we must feel that there is an immense amount of valuable material in the work, and that it would contain very much more could the distinguished author have lived to see it through the press The chapter on "Fever," the third in the book, is very interesting and instructive, as are, more particularly, the Sections on "Diseases of the Nervous System" and on the "Neuroses" To few books would we more willingly have given unrestricted praise than to this We can but hope that, for the good of the second volume, the editor and, especially, the English publisher have had their attention called to the more prominent faults in the first

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

MEMBERSHIP —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly JOURNAL of the Association for one year

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL

WHEN DUES ARE PAYABLE —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the JOURNAL for one year from the following July Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

DEATHS —When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

PAYMENT OF DUES FOR PREVIOUS YEARS —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

TRANSACTIONS OF THE ASSOCIATION —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

RICHARD J DUNGLISON, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

MEDICAL SOCIETY OF THE STATE OF NEW YORK —The eightieth annual meeting of this Society will be held in the Common Council chamber, City Hall, Albany, on the 2d, 3d and 4th days of February, 1886

SECRETARY OF THE SECTION OF OBSTETRICS AND GYNECOLOGY OF THE AMERICAN MEDICAL ASSOCIATION —In a recent issue of THE JOURNAL we gave the addresses of the officers of the several Sections of the Association In doing so, Charles T Paine, M D , of Comanche, Texas, was given as Secretary of the Section of Obstetrics and Gynecology We are informed from a reliable source that we should have given the name of J F Y Paine M D , of Galveston, Texas, as the Secretary of that Section The official minutes of the Secretary of the Association do not give the initials of Dr Paine, which gave rise to the error mentioned

BEQUEST FOR THE ADVANCEMENT OF SCIENCE —It is stated that about $25,000 has accumulated under a bequest of Mrs Elizabeth Thompson, who desires the sum to be appropriated "for the advancement and prosecution of scientific research in its broadest sense" Applications for grants out of this sum should be made to Dr S C Minot, 25 Mt Vernon St , Boston, Mass The first appropriations will be made early in the present year

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JANUARY 2 1886 TO JANUARY 8 1886

Major Chas E Goddard, Surgeon, died at Ft Yates, D T , Jan 4, 1886

Capt Curtis E Munn, Asst Surgeon, ordered from Dept East to Dept Columbia

Capt Wm C Shannon, Asst Surgeon, ordered from Dept Platte to Dept East (S O 4, A G O , Jan 6, 1886)

First Lieut W D McCaw, Asst Surgeon, relieved from duty at Ft Lyon, Col , and ordered for duty at Ft Leavenworth, Kan (S O 1, Dept Mo , Jan 4, 1886)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY
Vol VI   CHICAGO, JANUARY 23, 1886   No 4

ORIGINAL LECTURES

CARCINOMA OF THE CERVIX UTERI—TALIPES EQUINUS—FISTULA IN ANO

A Clinical Lecture Delivered at the Mercy Hospital, Chicago, December 5, 1885

BY EDMUND ANDREWS, M D, LL D,
SURGEON TO THE HOSPITAL
(REPORTED BY W G BAILEY)

This case appears to be cancer of the uterus. It is at least a fungous tumor, two and a half inches in diameter, filling the upper part of the vagina. It does not seem to have any adhesions to the walls of the vagina, but only to the cervix uteri. I will remove it cautiously, as the operation may be attended with some hæmorrhage, which we will check if necessary. I will first use the *ecraseur* to remove the great body of the tumor, then I can use the curette. This growth covers nearly the entire cervix, so that I shall be obliged to remove its base by scraping. The body of the mass is now removed. The base of the growth is tough and does not yield to scraping very readily. We cannot, you know, cut very freely in this vicinity for fear of wounding the peritoneum. There is not so much hæmorrhage as I had expected, though a small artery is to be seen pumping out its contents. I have trimmed away everything that can, with safety, be removed by the scoop, and will now make use of a little chromic acid to cauterize what remnants there may be left of the malignant tissue, and wipe out the parts so that the surrounding tissues may not be irritated by the caustic. We will then treat the wound antiseptically. The hæmorrhage has nearly ceased, only a faint oozing can be detected. The extent of this cancerous growth over the cervix was so great that I am not as cheerful about a cure being effected as I otherwise should be.

In a day or two I will make a specular examination and, if I find the wound in good condition, will cauterize the parts again. Using the scoop in this instance, was very good practice, but was not of sufficient utility, so the cautery was used. An ordinary bone scoop is about as good as any you can use for most purposes, and when the tissues are tough, as in this instance, it takes hold better than the curette.

Double Hare lip—Re operation.—The former operation has given us a good union of the lip part, but the columella that I made for the nose did not unite with the top of the lip. I must make a perfect union. Adhesive plasters will not be of much service in this case. I will pass silver sutures through the lip and septum of the nose and draw the parts together. Having now firmly restitched the parts, I will send the child to the nurse.

Tenotomy of Tendo Achillis.—This patient has at some former time had hip joint disease, the head of the femur has been destroyed. If it had been a dislocation with shortening to this extent we should have had a rotating inwards of the head of the femur, as the inward rotation is absent, it proves that the head of the femur was destroyed by the former disease. The tendo Achillis is so short that it draws the young lady's heel upward, thus producing the deformity talipes equinus. The patient as already stated, has one limb much shortened from former hip disease, and must wear an elevated shoe. If she does not have the talipes cured, the down sloping foot will always slide down the inclined plane of the sole, crowding the toes together into the tip of the shoe, and producing both corns and painful deformities, hence the sole of the foot must be brought to the horizontal position. We will perform tenotomy upon the tendo Achillis. I take the tenotome in my fingers, and insert it between the skin and the tendon, and then, turning the edge towards the tendon, sever the latter by a cautious stroke, now place a piece of adhesive plaster over the wound, and over the plaster a piece of Lister's antiseptic gauze, and cover all with a dressing of oiled silk, or oiled or waxed paper, any one of which makes an antiseptic covering. The whole will be retained in place by a bandage. In a day or two, tension will be applied to bring the foot to position.

Fistula in Ano, with Sphacelus of the Scrotum.—This man is a coachman and a favorite of the family with whom he lived, presumably, therefore, his habits are good, and his present condition not due either to intemperate habits or bad hygiene. He has had dysentery for some weeks at his home, and was attended by a physician of superior skill. The inflammation was first simply in the mucous membrane of the rectum and colon, it grew more intense, and penetrated all of the coats of the intestine, until, finally the connective tissue surrounding the rectum mortified, the walls of the rectum partially sloughed away, and a large fistula was formed. His softened fæces readily passed through the fistula into the ischio rectal fossa, thus inflaming that part, and poisoning, more or less, his whole system, the inflammatory process has extended along the perineal subcutaneous tissue to the dartoid tissue of the scrotum, and in this region produced a redness that pitted on pressure, like erysipelas Then the skin of the scrotum mortified I fear for his life because of his condition, though the disease has not been of long duration and his system does not seem to be hopelessly poisoned as yet I opened the scrotum yesterday to let out a quantity of serum that had collected there It does not follow that a man must die because of a local spontaneous gangrene I have seen cases in which almost the entire skin of the scrotum sloughed off, and the patients have made good recoveries His temperature has never risen very high, he has been taking the tincture of the chloride of iron and quinine, and in view of these facts, perhaps he is in better condition than one would suppose Where the abscess broke externally, a black gangrenous orifice is plainly visible Inserting my finger in the fistula, I can, without any difficulty, push it along the perineum to the scrotum Introducing my finger in the rectum, I find a large fistula connecting that viscus with the ischio rectal fossa With a probe-pointed bistoury, I will sever the tissues between the rectum and the external opening of the abscess, and also make another incision along the undermined perineum towards the scrotum Having freely opened the parts, I find a great mass of mortified connective tissue alongside the rectum, and a smaller one extending forward beneath the skin of the perineum as far as to the mortified patch on the scrotum This dead connective tissue is already loose, and we draw it out, as you see, without difficulty It is very putrid and horribly offensive I will now take my scissors and clip off the loose dead skin and dartoid tissue from the scrotum I hope the removal of this terrible mass of decomposing tissue may prevent the blood-poisoning from being fatal The parts will now be thoroughly sponged and syringed out with corrosive sublimate water, and the patient be taken to his room (In this case the dysentery recurred again, followed by gastritis and death)

ORIGINAL ARTICLES

THE PULMONARY COMPLICATIONS OF TYPHOID FEVER[1]

BY F B HARRINGTON, M D,

OF BOSTON MASS

TYPHOID FEVER COMPLICATED BY CIRCUMSCRIBED PNEUMONIA

Case 1 Miss G, 25 years old, was seen November 10, 1884 The temperature was 104 5°, the pulse 108, and the respiration 32 For five days she had been feeling poorly, and had suffered with headache and nausea She had a chill and there had been some cough The tongue was heavily coated The bowels were regular On examining the chest a region of dulness was found at the base of the right lung in front The dulness did not extend above the nipple, and was not marked In the back it was wanting Over this area moist râles with slightly prolonged expiratory sounds could be heard Before the present illness there had been no cough

The abdomen was slightly tympanitic, and there was slight tenderness in the left iliac region

November 11 On the following day the temperature rose to 105 2° Diarrhœa and some cough

November 12 Temperature 104 9° Diarrhœa and cough

November 13 The temperature 104 7° The cough was slightly increased and the expectoration, previously viscid mucus, became rusty in color The dulness had increased slightly in intensity though not in area Fine and course râles were abundant and respiration was somewhat bronchial There was some deafness For several days the patient seemed to improve and the temperature fell to 99 2° on the 16th The rusty expectoration disappeared and the cough became less The diarrhœa continued On the 19th she complained of pain in the region of the rectum, and a poultice was applied to a spot of tenderness

November 22 A large ischio rectal abscess was opened by incision, and the rush of pus and gas showed that it had perforated the rectum

From this time on the patient gradually grew worse

November 25 There was mild delirium, which changed two days later to active delirium The pulse was gradually becoming weaker There were abundant râles in both bases behind

The abscess continued to discharge

December 2 The patient died For two or three days before death there had been an increasing dulness at the bases of both lungs, due to the constantly increasing weakness of the heart

TYPHOID FEVER WITH HÆMOPTYSIS DURING CONVALESCENCE

Case 2 Mr C, of phthisical family, 28 years of age, after the usual preliminary symptoms of typhoid fever, went to bed January 22, with headache, coated tongue and pain in the right iliac fossa Diarrhœa began three days later The patient went through a mild attack of typhoid, and a little over three weeks after the attack the pulse became normal with a slight evening rise The pulse was now 96 and weak The temperature never rose above 103° Considering the moderate temperature and the lack of exhausting symptoms there was very decided prostration About this time a slight cough developed, but gave little trouble, and the chest was not examined The improvement in the patient was very slow At the end of a month the patient sat up for a short time, but was very weak Two months after he was attacked he was still unable to be about His cough had become more troublesome On examining the chest nothing abnormal was found The pulse was rapid and weak, this was March 17 Nine days later I was called and found the patient suffering from a profuse hæmorrhage following a fit of coughing At the left apex I found fine and coarse râles with dulness and slightly prolonged expiratory murmur Two weeks later there was a second though less copious hæmorrhage A month later the patient had so improved that he was able to walk out The cough continued and still exists, though the man is now about his business

---

[1] Read before the Section for Clinical Medicine Pathology and Hygiene of the Suffolk District Medical Society, December 9 1885

No disease is so prolific of complication as typhoid fever No structure of the body escapes entirely No function is safe Rupture of muscles, necrosis of bones, abscess of the liver, gangrene of the lungs, loss of sight, aphasia and insanity are but a few of the rarer complications There are two important causes for this multiplicity of lesions The first and most important cause is the duration and severity of the pyrexia The second cause, less demonstrable, is the specific poison of the disease The continued high fever causes parenchymatous changes in all the organs Hoffmann[1] found only 56 cases out of 161 autopsies in which the heart muscle was normal or nearly so The power of the heart is greatly lessened The circulation is impaired and the nutrition of the parts suffers The respiratory complications in typhoid fever are numerous Out of 111 autopsies, from Biermer's clinic, the respiratory apparatus was perfectly healthy in only two instances, according to de Cèrenville Bertz[3] makes a report of 899 cases of typhoid fever from Ziemssen's clinic from 1878 to 1883 Among a large number of complications were the following pulmonary, or intimately associated with pulmonary lesions —

Typhoid fever in Ziemssen's clinic from 1878 to 1883 Beetz [4]—

Bronchitis	59
Croupous Pneumonia	41
Catarrhal Pneumonia	14
Hypostatic Pneumonia	10
Hæmorrhagic Infarction	2
Pleurisy with Effusion	22
Old Pleuritic Adhesions	2
Pulmonary Phthisis	19
Miliary Tuberculosis	2
Pleuropneumonia	4
Pulmonary Emphysema	4
Gangrene of the lungs	1
Apex Induration	6
Abscess of Lung	2

Making a total of 188 out of 899 cases

A *report of* 250 *autopsies* after typhoid fever at Basle Hoffmann [5]—

Splenization	35
Lobular Pneumonia	38
Lobar Pneumonia	18
Pleurisy	20
Pneumothorax	1
Hæmorrhagic Infarction	15
Miliary Tuberculosis	4

Goeltdammer, in a report of 783 cases occurring at Berlin in 1874, 1875 and 1876,[6] says bronchitis was wanting in only the lightest cases Hypostatic congestion was found in 40 of those who recovered, and in about one-half of those who died (There were 130 deaths)

Lobar pneumonia existed in 11 cases, only one of which recovered Embolic pneumonia was the cause of death in five cases There were 13 cases of pleurisy, eight of which died There was one case of phthisis

Hoffmann, in a report of 250 autopsies at Basle, says[1] that bronchial catarrh extending to the finer bronchi almost always accompanied the early intestinal changes He found —

Splenization	35
Lobular Pneumonia	38
Lobar Pneumonia	18
Pleurisy	20
Pneumothorax	1
Hæmorrhagic Infarction	15
Miliary Tuberculosis	4

Two of the eighteen cases of lobar pneumonia occurred at the outset of the disease, and will be referred to again

I have included under the heading "Pulmonary Complication," not only true pulmonary lesion, but also lesion of parts intimately associated, as the bronchi and pleura

The signs of pulmonary lesion occurring with typhoid fever are usually marked to a greater or less extent Characteristic expectoration in pneumonia is often wanting Cough in bronchitis is frequently absent When respiratory lesions are epidemic, as might be expected, there is an increased amount of complication with typhoid fever Children are found to be more subject to these complications than adults

As has been already said, bronchitis is rarely wanting in typhoid fever Lichermeister says [2] "Catarrh of the smaller bronchi is so frequent in typhoid fever, that a certain diagnostic significance may be attached to its occurrence" It may be so slight as to cause little or no trouble, or may be, and especially in children, a very serious complication One of the chief dangers of this bronchitis is that owing to the great general weakness, the secretion may not be thrown off, and atelectasis and broncho pneumonia may result Lobular pneumonia is a common occurrence in typhoid fever A Weil,[3] owing to the lack of signs, considers it very difficult to differentiate the various forms of consolidation occurring in typhoid fever He is often unable to determine clinically, whether the consolidation be due to atelectasis, to hypostasis, to lobar or lobular inflammation, or, as often happens, to a combination of these conditions *Lobular pneumonia* is the most common form of pneumonia occurring in typhoid fever It rarely begins with a chill, but there is almost always an increase in the temperature

Lobar (*croupous*) *pneumonia* sometimes occurs during convalescence At this period it does not differ in any way from an ordinary attack of that disease There is usually the sharp attack with chill and sudden rise of temperature, dyspnœa, characteristic expectoration and râles When croupous pneumonia complicates typhoid fever of the second and third weeks, during the height of the disease, many of the ordinary characteristics are wanting According to

---

[1] Untersuchungen uber die pathologisch anatomischen Veränderungen der Organe beim Abdominal typhus

[2] Nouveau Dictionnaire de Méd et de Chir 36 590 G Homalle

[3] Deutsch Archiv f k Med Lepzig 1885 xxxvii 308

[4] Deutsch Archiv f k Med Lepzig 1885 xxxvii 308

[5] Untersuchungen uber die pathologisch anatomischen Veränderungen der Organe beim Abdominal typhus

[6] Deutsch Archiv f k Med xx 52

---

[1] Loc cit

[2] Ziemssen s Cyclopædia

[3] Zm Pathologie und Therapie des Typhus Abdominalis et cet. Leipzig 1885

Homalle,[1] the chill is often wanting, there may be no rise in temperature, pain is absent or of short duration, characteristic expectoration and râles are seldom present and the cough is infrequent

Lobar pneumonia, occurring during the first two weeks of typhoid fever, is the subject of much discussion It sometimes occurs as a simple complication, and at other times there seems to exist a kind of transition form between the two diseases

Lepine[2] in his article on "pneumonia," expresses his belief in a form of pneumonia due to the local infection of typhoid fever, in which the pulmonary symptoms are the noticeable ones, and the abdominal symptoms are slight This he calls pneumo typhoid Hoffmann[3] classes two of the 18 cases of lobar pneumonia which he found as pneumo typhoid A short history of one of these cases will illustrate the disease

Mr E, 21 years of age, began to suffer with headache, September 4, and had nosebleed September 13 went to the hospital The breathing was labored, there were râles in both lungs and dulness and bronchial breathing in the lower right lung On the 18th the patient died On autopsy, croupous pneumonia of the right side and infiltration of Peyer's patches and ulceration of the ilium were found Had the latter lesions been absent, Hoffmann would have considered the case one of pneumonia with typhoid symptoms [Typhoid pneumonia Flint]

Longet[4] thinks that there are cases of pneumo-typhoid in which there are no intestinal symptoms, and in which on autopsy no intestinal lesion can be found He believes that typhoid poison in severe cases makes its entrance through the lungs or has its seat there E Wagner,[5] in concluding an article on the subject of pneumo typhoid, says that, with our present knowledge, it is impossible for us to decide the exact neurological position of the disease Exact knowledge of the specific germ of the disease will clear this doubt

Cardiac weakness, so common in typhoid fever, is a direct cause of several of the pulmonary complications These complications are in no way peculiar to typhoid fever, but may occur in any asthenic fever They are more common in typhoid fever on account of the duration and intensity of the fever Passive congestion of the lungs often occurs as the result of cardiac weakness This passive congestion may lead to œdema The passive congestion is most likely to occur in dependent portions of the lungs It may be unilateral if the patient for any cause has assumed a position upon one side, but when it occurs it is usually bilateral This form of congestion has been called hypostatic When the parts, through œdema, become devoid of air, an appearance resembling the spleen may be seen This is splenization Another result of feeble action of the heart is the formation of thrombi These becoming detached, may cause embolic infarction of the lungs Emboli may arise from some septic source Goldtdammer[6] reports five deaths from embolic pneumonia among 783 cases of typhoid fever The origin of the emboli was in one case the right side of the heart, in another an old perityphlitic abscess, in a third case an abscess of the thigh The origin in the other cases was not discovered These emboli may cause gangrene of the lungs, and the pulmonary tissues breaking down, pneumothorax may result Embolism of the pulmonary artery and instant death is not a rare occurrence

Like pneumonia, pleurisy in typhoid fever may give little indication of its presence It occurs frequently, but unless extensive, it is very apt to escape notice Empyema also occurs, and sometimes independently of pneumothorax Acute miliary tuberculosis sometimes occurs as a sequel to typhoid fever, but probably not from any direct cause Phthisis also develops sometimes as a result of the non-absorption of secretions which have not been thrown off during the period of great prostration

Hæmoptysis, according to Homalle,[1] occurs during typhoid as the result of a hæmorrhagic infarction It may also occur as a symptom of concurrent phthisis

The extreme exhaustion of many typhoid cases makes the frequent examination of the patient more difficult For this reason and from the lack of symptoms many of the above complications undoubtedly exist at times and escape unnoticed Given a severe case of fever with high temperature and marked abdominal symptoms, diarrhœa, abdominal distension and tenderness with more or less stupor, is the frequent examination of the patient's chest, requiring moving of the patient, necessary or desirable? Flint advises the frequent change of the position of the patient with a view to prevent hypostasis This certainly is desirable Patients who have kept a fixed position for a long time will often give signs of hypostasis, which will disappear on assuming another position If this plan be carried out, there will be no additional fatigue to the patient from the application of the stethoscope By its use we may learn more of the real strength of the heart than the pulse or the heart sounds could give us, and we may get an earlier warning of the necessity for increased efforts to sustain the heart's action

Antipyretic measures undoubtedly decrease the frequency and severity of pulmonary complications Liebermeister reports concerning 1743 typhoid patients, about one half of whom were treated by cold baths, that the number of cases of pulmonary consolidation was reduced from 14 4 per cent to 10 9 per cent, and that the mortality of these cases was reduced from 54 per cent to 34 per cent

PENETRATING WOUNDS OF THE ABDOMINAL CAVITY[3]

BY S M HAMILTON, M D,

OF MONMOUTH ILL

Penetrating wounds of the abdominal cavity, with injury to any one of the contained viscera, may be considered if not necessarily fatal, yet always doubtful of favorable termination under any course of treatment. The probabilities of not one, but several of the abdominal organs being implicated in the injury, the danger from surgical shock, concealed hæmorrhage, and local or general peritonitis, are considerations of extreme gravity. This paper is intended to be more suggestive than discursive, and will be confined to a single division of the subject, namely, the management of wounds of the intestine, lacerated or incised, from missile, or pointed instrument, penetrating or traversing the abdominal cavity.

---

[1] Loc cit

[2] Nouveau Dict de Med et de Chirurg xxviii

[3] Loc cit

[4] L Union Méd xxxviii 769

[5] Deutsch Archiv f klin Med 1884 xxxv 191

[6] Loc cit

[1] Loc cit

[2] Loc cit

[3] Read before the Military Tract Medical Society Nov 10 1885

Until a very recent period the history of these cases is a chapter of dismal failures. A minute analysis of the literature of the subject would be full of instruction and interest, but it is too extensive for a paper like this, and the records are open and familiar to all. It is only within a very few years that anything better than the expectant and palliative treatment in these cases has been attempted. It is true that Larrey and some of his cotemporaries made some attempts at surgical interference, but so far as the records show, the enlargement of the external wound was confined to barely as much as was necessary to find, and close with suture, a wound in the intestine, whilst no mention is made of that more important procedure (without which all else will be vain), the thorough cleansing of the peritoneal sac of all blood clots and irritating material which, in almost all cases, escape from the wounded gut.

The surgical history of the late war records about eighty per cent of deaths from this injury. In but very few cases was there any departure from the expectant and palliative plan of treatment. The tables include wounds from sabre, bayonet and bullet, and pieces of shell, the two last, of course, by far the most numerous. Of nine cases of bayonet wound, six recovered without any special surgical interference. In at least two there was room for doubt as to the fact of intestinal perforation at all. In the others, the evidence is conclusive that the gut was wounded, but under such favorable conditions that the rent was sufficiently closed on the withdrawal of the weapon to prevent fæcal infiltration, and permanently, after a spell of local inflammation. It is quite apparent in these nine cases, that the form of the weapon had a great deal to do with the favorable result. The bayonet has no cutting edge, is generally blunt-pointed, smooth and polished. A wound from it approximates that made by a trocar. The tissues are not cut, but separated, have a tendency to spring back into place on the withdrawal of the instrument, and close up the wound of entrance.

Gun shot wounds are far more likely to produce dangerous consequences. Yet it is quite possible for a bullet, even of large size, to traverse the belly from front to rear, or from side to side, without wounding the intestine, or seriously injuring any other of the important viscera. One case of this description is found in my own experience. A musket ball penetrated the abdominal wall one inch to the left of and a little above the umbilicus, passed directly through the body, and escaped at a point about one inch from the spinal column. The patient fully recovered, without any bad symptoms except those which usually attend a moderate attack of local peritonitis. There was in this case conspicuous absence of the protracted and unmanageable shock which so often attends cases of wounded intestine, but little pain, and no rapidly developed meteorism, and to confirm the correctness of the diagnosis, the patient had regular discharges of normal fæces about every second day, until his complete recovery took place. I believe it quite in the range of possibility for very small missiles, such as bird shot, to penetrate the bowel and the punctures close up at once, like the wound of the hypodermic needle or small trocar, and give but little trouble. One such case I have seen. It needed no special treatment, and fully recovered.

These rather tedious details are given to give emphasis to the doctrine that even here, in these cases of severe abdominal injury, the claims of conservative surgery are by no means to be overlooked.

The evidence of serious intestinal lesion is generally clear and conclusive. The shock is marked and profound, and disinclined to yield to treatment from the first. The small thread-like pulse, cold, clammy skin, and the shrunken hyppocratic face, show an alarming condition of nervous prostration. Very often, but not always, there is bilious or stercoracious vomiting. Always great pain, and rapidly developed meteorism. If the external wound is large, sulphuretted hydrogen, or fæcal matter, may be detected by sight or smell. Aside from this last (which is conclusive), the rapidly developed meteorism, which is always present, possesses more diagnostic value than anything else. It is of course caused by the escape of gas from the torn intestine into the peritoneal sac. These are the symptoms generally present. They are exaggerated or lessened, according to the situation and extent of the internal injury. They seem to be plain and conclusive, and easily understood *on paper*, but I presume that in many of the cases there is a wide margin for mistakes in diagnosis, mistakes which, on the one side, may subject the patient to a needless and dangerous operation, and on the other side, cut him off from his only hope of safety. I know of no situation in which a surgeon may be placed, where rapid and correct deductions, from symptoms to conditions, are so necessary as in these cases of penetrating wounds of the belly. What is the matter? is the all important question, and there is but little time which can safely be given for its solution.

For obvious reasons, wounds of the small intestine are much more dangerous than those of the large. A missile traversing that part of the cavity almost certainly will cut across not one, but several, folds of the gut, making not one, but many wounds by which poisonous gas and fæcal matter are poured out upon the sensitive peritoneum. Added to this is its greater mobility from outside disturbance and peristaltic action, lessening thus the chances of cure by adhesive inflammation between the folds of the peritoneum. Wounds of the large intestine are less dangerous because it is in some degree a fixture in the abdominal cavity, is less dislocated or disturbed by peristaltic action, and a part of it is not covered by peritoneum A wound involving this uncovered portion of the large intestine alone, should have less of the dangerous element in it than the same amount of injury to any other part of the intestinal tube

The general indications for treatment of these cases are so plain that no one need err Perfect rest, abstinence from food for several days, stimulation until reaction takes place, and *opium* from the first hour should be given freely, to quiet the peristaltic action of the bowel, and keep the irritable nervous system in subjection This last is of vital importance in all cases of abdominal injury, when peritonitis, local or general, is to be expected, whilst in cases of intestinal lesion it allays the terrible pain and prevents, to some extent, the pouring out of gas and fæcal matter into the peritoneal cavity, by its power over the muscular fibre of the bowel The constitutional effect of mercury would seem to be indicated in cases of this kind where a high grade of peritoneal inflammation is expected Its purgative action should be carefully guarded by a sufficient amount of opium, and the remedy stopped as soon as the mercurial fœtor of the breath is noticed

The main object of this paper is to call attention to the surgical treatment of certain cases of abdominal injury which, if left to themselves, almost without exception terminate fatally I refer to cases of gunshot wounds involving one or more folds of the, intestine The cases are as desperate as can well be imagined, and if let alone, or subjected to general treatment alone, there is nothing in prospect for them but a speedy and grievously painful death The surgical expedients carried out by Larrey and others were attended with little success They seemed to have a great fear of wounding and exposing the peritoneum, and contented themselves with as little enlargement of the external wound as was necessary to reach and close the wound in the intestines It is only recently that surgeons have learned that the peritoneal membrane is but little more susceptible of inflammatory destruction than other parts of the human anatomy The modern operation of ovariotomy teaches us that the abdominal cavity may be laid open from ensiform cartilage to pubes, its contents exposed to the atmosphere for hours, and the peritoneum cut and torn very extensively, without the occurrence of fatal traumatic peritonitis The earlier operators for ovarian disease urged as a reason for surgical interference that the disease if left to itself or subjected to any other treatment known to the profession, was necessarily fatal, sooner or later It was a good philosophical reason for a bold and hazardous experiment, and probably, outside of such a consideration, no surgeon would have had the hardihood to undertake such an operation The beneficent result is, that now more than seventy-five per cent of these necessarily fatal cases of disease are completely and permanently cured The same reason for operative procedure is good in these cases of wounded intestine Absolutely nothing but death can be expected, preceded by many hours or days of unspeakable agony

In looking over the literature of the cases in which laparotomy has been resorted to, even those lately performed, one fact seems very prominent, that the old fear of peritoneal injury still sticks in the minds of some operators, and stands in the way of that carefulness of detail and thoroughness which alone can secure and deserve success The last case I have seen reported is one by Dr Parke, of Chicago, the unfavorable result of which was no doubt owing to some blood clots, partly disorganized, found in the peritoneal cavity They had no doubt been overlooked in the dressing The thorough exploration of the cavity was rendered difficult, or impossible, by the faulty primary incision, made through the track of the ball, far over to the left side, instead of in the linea alba The incision should be central without reference to the external wound, and large enough to expose the entire cavity to the closest inspection, so that every wound shall be discovered and secured by stitch or suture, all hæmorrhage controlled, and above all, a thorough cleansing of the peritoneal sac from blood clots and any liquid or solid foreign material which may have escaped from the intestinal canal

If any one imagines that this is not a tedious and difficult operation, it is my opinion that his first case will afford him a rude awakening from a foolish dream I am told that it is not always an easy matter to find these wounds, especially of the small intestine, and still oftener is it difficult to isolate them, so that they may be properly closed Then there are the different kinds and sizes of solution of continuity, from complete division, requiring invagination of the gut, to the small puncture, requiring but a single ligature, all taxing to their utmost the skill, patience and the ingenuity of the operator Nothing should be neglected, be the time long or short Everything for the safety of the patient should be done in the most thorough manner possible under the circumstances

I believe that any and every form of stitch or ligature known to the dressmaker or the surgeon may be needed in these cases The glover's stitch, the basting stitch, the interrupted suture, and the simple ligature, all may have their uses according to the kind, shape, and extent of the injury to be repaired Operators have used iron wire, silver wire, catgut, animal tendon, and I know not what else, for this purpose But I believe most operators have gone back to good old-fashioned silk And why not? It is animal fibre, in as minute division as anything known consistent with the necessary strength I believe that experience proves it as good as the best for closing these and all other kinds of wounds Post mortem evidence is conclusive that the heavy silk, stump ligature, used in ovariotomy, and dropped into the peritoneal cavity, disappears so entirely within a year, that not a shred of it can be found

I hardly know what to say about "Listerism" in connection with laparotomy for wounded intestine I believe *the spray* is mostly abandoned Many consider it an agent of evil, rather than good We all use a weak solution of carbolic acid to bathe hands and sponges and instruments Is it merely a habit, a "fashion," as much honored in the breach as the observance? In my opinion the largest logic which can be extracted from the "noisy pother" of Mr Lister and his enthusiastic admirers is, that extreme cleanliness and good ventilation are the chief factors in the equation of successful surgery

The success which has already attended some of our surgeons in the very worst cases of wounded intestine, should give us hope for better things to come Dr Bull, of New York, reports a case with seven perforations of the gut, and Dr J B Hamilton another with eleven perforations, both treated by laparotomy, and both made complete recoveries

The subject should surely enlist in its investigation the best thought and the best work of the profession

---

THE ETIOLOGY OF RACHITIS[1]

BY H C HAVEN, M D,

OF BOSTON

Although we can hardly accept Jenner's statement that rachitis is the most common, the most important, and in its effects the most fatal of the diseases affecting children, as holding true in this country, it is yet sufficiently common to make its prevention of great importance to the public health It is, typically, a preventable disease—so far as serious results to the individual are concerned—if proper treatment is instituted early enough It might, probably, be absolutely prevented, if we knew the ultimate causes

My purpose is to briefly present the statistics I have gathered as to the effect of the commonly accepted causes of rachitis on its production in this city

During the past three years, at the West End Dispensary for Children, there were in attendance—

Total number under 7 years	1,516
' " of rachitics	75
Percentage of rachitics	4 94
Total number of colored under 7 years	90
rachitics	38
Percentage of colored rachitics	42 79
Total number of foreign ancestry under 7 years	340
" ' ' rachitics	20
Percentage of rachitics of foreign ancestry	5 88
Total number American ancestry under 7 years	114
' ' ' " rachitics	4
Percentage of rachitics of American ancestry	3 50
Number of ancestry unknown	973
' " " rachitics	10

RACE

Classifying the rachitics as to race, we find, of the number where it is known Colored, thirty-eight, foreign, twenty, American, four Of the twenty rachitics of foreign ancestry (Provinces included), there were Portuguese, three, Italian, two, Irish, two, English, two, French, one, Nova Scotian, two, Russian, one, German, one, of mixed parentage, both foreign, four, of mixed parentage, father American, two, of mixed parentage, mother American, one

FEEDING

Breast alone till 3 months,	308	11	rachitics or	3 57	per cent
" ' ' 6	295	7		2 37	per cent
' " ' 9	137	10	'	7 29	per cent
' 12	200	7	'	3 50	per cent
' ' over 1 year	60	3		5 00	per cent
Breast with other food till 3 months	74	5	rachitics or	6 75	per cent
" 6 '	43	2		4 65	per cent
" ' ' 9 '	83	3		3 66	per cent
' " " 12 '	477	9		1 04	per cent
over 1 yr ,	381	17	or	4 46	per cent
Artificial feeding only	119	13	rachitics or	10 85	per cent
Number where food not known				286	
' ' and rachitic				3	

These figures need, of course, a further analysis to make them of much value, but they show, I think, very clearly, that other factors than food are, in this series of cases, the original or exciting causes of rickets

Having noticed the frequency of rachitis among the colored in this series—and I have observed this in the attendance at other dispensaries—let us analyze the feeding of the colored children to see if, so far as they are concerned, the dietetic factor is an important one This was as follows

Breast without other food till 3 mos ,	18	7	rachitics or	38 88	per cent
' ' 6 '	8	3	'	37 50	per cent
' " ' " 9 "	5	4	'	80 00	per cent
' " ' 12 '	9	4	'	44 44	per cent.
Breast with other food till 3 mos	7	1	rachitic, or	14 28	per cent
' 6	4	1		25 00	per cent
" " 9 '	3	1		33 33	per cent
' " 12 '	16	8		50 00	per cent
' ' ' over 1 year,	27	12		44 44	per cent.
Artificial feeding only	16	6	rachitics or	37 50	per cent.

I recognize the objection, that these statistics are too small to have great weight, but I cannot but think they are sufficiently numerous to show that at least the dietetic factor is not an important one in producing rickets in colored children in Boston, the per cent of all rachitics among all colored is only a little less than the per cent of colored rachitics in the artificially fed from birth And in this series of cases, moreover, many colored children are not counted as rachitic where they only showed slight bone changes Since December 1, 1884, about the time I began to carefully note any evidence of rickets, the total number in attendance under 7 years has been 495, and fifty-two colored, or 11 5 per cent

Of the fifty-two colored, twenty-five only were non-rachitic, and twenty-seven rachitic, 51 9 This per cent even is too small, however, I am very sure as sometimes, in the hurry of examination, I have neglected any record as some of my charts remind me The only question in regard to the dietetic factor yet to be spoken of, is this Is the milk of colored mothers, otherwise healthy, as good an article of diet as the milk of the other races? I have no reason to doubt it or affirm it, except that in many of the cases there is no evident failure of nutrition on the part of the child I hope later to present some analysis of the milk of women nursing rachitic children

Assuming, then, the preponderance of rachitis among the colored race in Boston, and granting the effect of the diet they receive not to be a marked one, at least, as I think we are justified in doing, the question arises as to what other cause may be acting, peculiar not to any racial dyscrasia, but resulting from racial or acquired character and habits, that is, are the quarters of the city in which they live more densely crowded, are the tenements they inhabit more damp and cold or having less sunlight, are their habits of caring for their children, especially as to taking them out of doors, different from those of the equally destitute of other nationalities? I can only give my opinion, that all these questions must be answered in the negative I have no positive information, and hope I may obtain some from others to night My experience has been, that the colored are more lavish in expenditure for food and rent than other poor, taken as a class, that in equal ways their table is better equipped and the food better cooked As for the airing of the children, I do not see how they could be taken out *less* than the children of the Irish poor, until after they can walk, after that time I have noticed no difference

---

[1] Read before the Section for Clinical Medicine Pathology and Hygiene, of the Suffolk District Medical Society December 9 1885

Another question must be considered Are one or both of the parents less healthy than the average white of same social condition? If they are, this may be considered as a causative influence, transmitted but not acting through direct heredity

Of the 33 colored rachitics whose family history is known, both parents *said* to be healthy in 21

Mother healthy in 4 cases, father dead in 3, 1 Bright's, 1 phthisis, 1 rheumatism, in one father had cough every winter, well in summer

Father healthy in 5, mother dead in one of phthisis, "never strong in 2," married at 13 in 1, rheumatic in 1

In 2 cases there was phthisis in father and asthma and rheumatism respectively in mother, in 1 father had phthisis and mother died in confinement

Of 31 rachitic white, whose family history was known, parents said to be healthy in 23

Of the 8 remaining, in 3 father healthy, mother had chorea, rheumatism and measles at birth of child respectively

Mother healthy in 3, father, kidney disease, arsenical poisoning, and "not strong"

Mother dead of phthisis in one, with father not strong, father rheumatic in one, mother healthy excepting catarrh which had destroyed septum, specific

No history of syphilis in any, nor have I seen any rachitic symptoms in a number of confessedly syphilitic children

In this comparison we see not much difference, but of course the statements of the parents are of comparatively little value, I think undoubtedly, in this climate the average of health is less in the negro than the white native or immigrant from the north of Europe How much lower, if any, it is than that of the immigrant from France or Italy, I have no means of forming an intelligent opinion

In any case I do not believe there is enough difference to account for the marked preponderance of rickets on the ground of the parents' health, though it may, and undoubtedly does, exert an influence

What, then, is the determining cause of this frequency? I see no source of any such cause but what must arise from a peculiar predisposition to this form of disease in the colored Is this to be referred to anatomical basis, as, for instance, are the arteries of this race larger or wider? I know of no such peculiarity And again, if the statements made to me by lay observers are true, that the disease is the less common the farther south we go, that would preclude any such hypothesis being entertained I can find no medical testimony as to its relative frequency It is stated, however, to be practically unknown in tropical regions In the writings on African explorations, I have met no notice of such a disease having been noticed among the young, as it would probably have been had it existed Again, I have been told by lay observers that the disease is the more frequent and severe, the purer is the African blood, and I have found this to be true in my experience in this city

The only hypothesis I can suggest to myself to account for the relative frequency of rachitics in the colored race is that as their natural habitation is much farther south than North America, the effect of the climatic conditions, which are recognized as having a causative effect in rachitics, is exaggerated, the purer the African blood the more will the effect be noticed In other words, there is an inherited necessity for heat and sun which our climate does not satisfy, and rickets results It is striking in this connection to notice that of the white rachitics of a foreign ancestry, the majority are born of parents coming from the south of Europe, where the disease is relatively rare, rather than of parents from England and North Germany, where the disease is rife

I have presented these facts principally for the purpose and in the hope of eliciting criticism and information which shall enable me the better to make a more thorough study of the subject than I have had the time to do in this sketch

MEDICAL PROGRESS.

SUPPURATION AROUND THE VERMIFORM APPENDIX TREATED BY ABDOMINAL INCISION —At the meeting of the Clinical Society of London, on December 11, 1885, DR THOMAS BARLOW and MR RICKMAN J GODLEE read a paper relating to a man, æt 20, whose previous history was unimportant, except that for the last two years he had been subject to attacks of diarrhœa and vomiting His illness began rather acutely on September 12, 1885, with loss of appetite, severe abdominal pain, and later, vomiting and absolute constipation He was admitted into University College Hospital on the 15th, with a temperature of 102 4°, intense abdominal pain and tenderness, intermittent bilious (not stercoraceous) vomiting, and tight distension of the abdomen There was a small patch of slight redness in the right iliac fossa The diagnosis appeared to be between mischief about the appendix and constriction of the intestine by a band high up He was given opium and iced beef-tea, and ice was applied to the abdomen The temperature fell to normal, and the pulse was about 90, full and soft, the tongue dry and the color good, but, as the symptoms were unrelieved, an exploratory incision was made in the middle line on the night of the 16th General early peritonitis was found, but lymph only in the neighborhood of the cæcum, surrounding a collection of fetid pus The vermiform appendix was much thickened A second incision was made over the right iliac fossa, and a large drainage tube was inserted through it, reaching down to the appendix, a smaller one being placed in the median incision, which was closed with sutures The peritoneum was first washed out with a solution of corrosive sublimate (1 to 500) The patient made an excellent recovery, the temperature remaining normal, and the pulse about 90 He was fed principally by the bowel for some time, beef-tea and arrowroot were allowed on the twentieth day, and minced meat a fortnight later No drugs were given except morphia for the first two days Thirst was allayed by means of warm-water enemata He had slight albuminuria a day or two after the operation, and a little later a parotid bubo occurred which did not suppurate It was claimed that the uncertainty of the diagnosis justified the exploration, and that the early evacuation of the putrid pus rescued the patient from a condition of very great danger and prevented the matting together of the intestines which would otherwise have occurred The freedom with which the peritoneum might be treated was pointed out, and the advisability of withholding food from the stomach for a prolonged period in such cases was insisted upon Remarks were also made upon the absence of peritonitis and the presence of albuminuria as points in the diagnosis, and upon the relation between inflammation of the parotid and diseased states of the peritoneum

Mr Morrant Baker related a case under his own care, in which an abscess in the neighborhood of the cæcum had been evacuated by operation, but which had recurred with a fatal issue at a later date, the cause being found in the presence of a needle projecting through the vermiform appendix and held in its position by hard concretions on the inner side, thus forming a permanent source of irritation

The President described a case in which, with all the signs and symptoms of peritonitis, an abscess was discovered and evacuated through a lumbar incision with perfect success Acute peritonitis was rare without a local cause, and this was very frequently to be found about the cæcum He suggested that exploratory incisions should always be made in that region Mr Baker's case was remarkable as proving beyond all doubt that foreign bodies might sometimes lodge in the vermiform appendix, a possibility which had been denied on the highest authority

Mr C J Symonds remarked upon the fact that in Mr Godlee's case the escape of the pus into the peritoneal cavity had not prevented the success of the operation Such a fact was very encouraging, and would lead to more active treatment in this class of cases, which were sometimes impossible to diagnose The ordinary signs and symptoms were not always sufficient to indicate the nature of the attacks of intestinal obstruction or peritonitis which appeared at times to come on absolutely suddenly There could be no doubt that foreign bodies in the vermiform appendix were very rare

Mr Barker considered that more decided action would in future be taken in dealing with these cases He related the particulars of a case in which he had operated for the relief of strangulation by volvulus in the presence of acute general peritonitis Although the coils of intestine were in places matted together with lymph, he had been able to search the greater part of the course of the small intestine and also the cæcum, to wash out the cavity and the coils of intestine, and to return them without difficulty and with perfect success The case had done well since the operation He thought that such a case, with others similar to it which were now accumulating, proved that the inflamed sac of the peritoneum might be dealt with in the same way as that of an ordinary abscess

Dr Barlow confessed to a feeling of relief that no adverse criticism had been advanced to the early surgical interference in this case He was aware that many physicians of experience were not in favor of it The result of the case had been perfectly satisfactory, and the patient had recovered without any of that thickening round the wound which was apt to become a source of future danger The really important element of the case, after the operation, was the feeding The abdomen had to be kept at absolute rest, and hence nutrient enemata had been employed The rectum, however, was not usually tolerant of ordinary enemata after the first day or two, and hence arose a serious difficulty which was only partly to be overcome by the use of peptonized meat extract and peptonized milk Thirst was almost always a serious feature in these cases, the mouth and tongue often getting very dry and coated By giving the tongue something to do, however, this difficulty could be got over, and in this case, by causing the patient to chew the meat without swallowing it, the desired result had been obtained

Mr R J Godlee observed that he should bear in mind the remarks of the President with respect to making exploratory incisions in the neighborhood of the cæcum He related his own personal experience to the effect that the pain in inflammatory affections of the cæcum is often felt on the left side of the abdomen He thought that the patients' own history of very sudden onset of the attack was not always trustworthy—*Medical Times and Gazette*, December 19, 1885

Extra-Peritoneal Incision of a Small Pelvic Abscess —At the meeting of the Obstetrical Society of New York, on November 17, Dr W M Polk related this case Two months before a woman had entered his service at Bellevue Hospital with a pelvic abscess, which pointed in the posterior cul-de-sac He opened and drained the abscess per vaginam, but, although the patient at first improved, she began to have hectic, and speedily lapsed into a condition resembling the last stage of phthisis Thinking that there was another accumulation of pus which had not been reached, the speaker introduced his finger into the abscess and explored it thoroughly, but could detect nothing After waiting two weeks longer, the patient was anæsthetized, and a thorough examination was made With a finger in the abscess cavity, one in the vagina, and another in the rectum, a suspiciously soft, but not fluctuating mass, about the size of a pigeon's egg, could be felt behind the left broad ligament, between it and the rectum, and apparently attached to the pelvic wall just above the spine of the ischium There was no pointing or even bulging in the direction of either the rectum or the vagina The problem was how to reach it To go down through the cavity of the abdomen, meant that the pus would have free access to the peritoneum, as from the position of the supposed abscess and its size, its walls could not be attached to the abdominal opening so as to drain its cavity, and at the same time exclude its contents from the abdominal cavity The enucleation of the entire abscess contents and walls seemed too serious an undertaking in the patient's weakened state, so the idea of reaching the mass by laparotomy was abandoned The next suggestion was naturally that an attempt should be made to reach the pus through the vagina, or rectum, or old abscess cavity Its remoteness from the walls of all these cavities, the number of the vessels in the involved region, with the presence of the ureter, made him hesitate to attempt evacuation through either of these cavities There remained but one other path, and that was outside the peritoneal cavity, by going down between that cavity and the pelvic wall The incision for ligating the common iliac artery was made, the peritoneum was easily pushed back until the brim of the pelvis was reached, then the index finger was carefully and *easily* worked down along the pelvic wall toward the abscess until the resistance to further progress showed that he had reached the region of adhesions usually surrounding such spots, gently forcing the finger onward, the abscess cavity was reached, and about one ounce of fetid pus was evacuated A drainage tube was put in and the cavity cleansed This cleansing has been done twice daily, and to date the patient has been well It was three weeks since the operation

DR JANVRIN had never seen a parallel case He thought that Dr Polk was most fortunate in being able to detach, and afterwards to open the peritoneum, because it was generally thickened and adherent in such cases

DR WYLIE said that he had frequently removed by laparotomy abscesses connected with the tubes and ovaries He washed out the cavity afterwards with a solution of carbolic acid, 1 to 100, or of corrosive sublimate, 1 to 10,000, and afterwards with water which had been purified by boiling He thought that the tubes were generally the centres of suppuration

THE PRESIDENT asked if the speaker would open and drain a *pelvic* abscess through an abdominal-peritoneal incision

DR WYLIE replied that he would drain such an abscess through the vagina if it could be reached, but that if is reformed, it was probable due to pyosalpinx, and hence laparotomy was necessary

DR BYRNE asked Dr Polk if he had ever had any trouble from secondary hæmorrhage [Dr Polk replied that he had on two occasions] DR BYRNE said that he had frequently opened pelvic abscesses through the vagina, and even through the rectum, but that he had never seen any hæmorrhage He thought that the surgeon should hesitate for a long time before undertaking such an operation as that just reported It was not only difficult to separate the peritoneum in the manner described, but that delicate membrane would certainly be injured during the operation

DR SKENE asked if pelvic abscesses were not frequently followed or accompanied by cellulitis

DR POLK replied that his experience had led him to believe that pelvic cellulitis in the non-parturient uterus was a rare condition

DR SKENE believed that he could generally do better by aspirating pelvic abscesses through the vaginal roof, and then washing out the sac by simply reversing the current

DR POLK agreed with the speaker, but thought that aspiration was merely a temporary expedient, which should be followed up by the radical operation

DR SKENE thought that the needle could be left *in situ*, and a fine thermo cautery knife could be passed along it as a director, the abscess being thus opened with much less risk of hæmorrhage and subsequent inflammation

DR POLK said that he would have been afraid to use a cautery in his case on account of the close proximity of important structures, especially the ureter He remarked, in conclusion, that it would have been impossible to open the abscess by laparotomy, and since it did not point, and could not be reached through the vagina, there was only the one other alternative which he had adopted If he had another similar case, he thought that he would perform the same operation, as no difficulty was met in separating the peritoneum, and that membrane, as was well known, did not seriously resent that proceeding —*Am Jour of Obstetrics*, January, 1886

PARTIAL DISLOCATION OF THE HEAD OF THE RADIUS PECULIAR TO CHILDREN —MR SIDNEY H LINDEMAN, in a short paper on this subject, says that the late Mr McNab, of Epping, was the first to call attention to this injury in England, in Heath's "Junior Surgery," and in Ranking's *Abstract* for 1863, vol 1, there is a paper by Dr Hodges on the subject M Goyrand has also paid it much attention But great doubt has always been expressed as to whether this injury in children under 5 years of age, is a dislocation of the radius at the elbow, or a displacement of the fibro cartilage at the wrist, so difficult is it in children of this early age to get a complete diagnosis The dislocation has in every case that I have seen, occurred in children under the age of 5, the most common period being between nine months and two years It is a partial dislocation of the head of the radius, forwards on to the condyle of the humerus, perhaps in some cases reaching the shallow depression above the trochlear surface which goes by the name of the radial depression It is generally caused by some one saving the child from falling by taking hold of the hand In elder children, it is caused by nurses swinging them around by the hands, or it may result from a fall In the first two cases, the tendon of the biceps largely participates in its production This muscle acts both as a supinator and a flexor of the forearm, but it also flexes the arm on the forearm, when the latter is fixed, as in climbing, and, consequently, any great traction at the wrist causes it to be strongly brought into play, and so tends, by reason of its attachment to the posterior surface of the tuberosity of the radius, to bring the upper extremity of that bone forwards, out of its place (In adult life, I doubt if this partial dislocation ever occurs, but several cases are reported of complete dislocation forwards *Vide* Dr Will, *Lancet*, June 7, 1879)

After meeting with the accident, the child is brought evidently in great pain The injured limb hangs down midway between pronation and supination The person who brings the child rarely knows where the injury lies, but generally thinks it is in the shoulder Taking hold of the hand causes very great pain The elbow is found to be hotter than its fellow, and there can always be felt an unnatural prominence on the outer side of the joint Flexing the arm to a right angle and complete pronation can be accomplished, but, in attempting to flex more, or to supinate, some resistance is felt

Reduction of the dislocation is accomplished by taking the hand of the child in the opposite one and strongly supinating, at the same time that the thumb of the other hand presses on the head of the radius Before complete supination has taken place, a distinct "thud" will be heard, and the head of the radius felt to slip back One of the peculiarities of these cases is, that the child, a few minutes after the reduction, will move the hand and arm, and will even grasp anything that may be offered to it, without apparently suffering any pain These dislocations have a great tendency to recur, especially if not reduced early in the first instance I have seen more than one case in which permanent enlargement of the elbow joint has resulted, through the dislocation not having been diagnosed and properly treated in the first instance After the reduction, it is necessary for the joint to be kept at rest by a rectangular splint, the small tin ones being the most suitable for the purpose The injury most frequently occurs in children of the strumous type, with large ends to the bones Previously to the last two years, no notes were taken of cases seen Since doing so, twenty-four examples have come under my observation

I think that a slipped tendon of the wrist, to which children are rather liable, may have been mistaken for a dislocation, and so led to the confusion, which has previously occurred, concerning injuries to the fore arm in children of this age —*British Medical Journal*, Dec 5, 1885

MEASUREMENT OF RED BLOOD CORPUSCLES —In the *Chicago Legal News*, of July, 1885, DR MARSHALL D EWELL records some careful examinations of red corpuscles with a view to obtaining an average, more especially for medico legal purposes

An examination of the figures shows that the difference between the greatest and smallest averages of 25 corpuscles is 000028 or 1-35714 inch, a magnitude that may be easily measured by any person having the requisite skill and apparatus The difference between the highest and lowest averages of 50 corpuscles is 000015 or 1 66666 inch, which approaches more nearly the limit of micrometric measurement, though probably not beyond it The difference between the highest and lowest averages of 75 corpuscles is 000012 or 1-83333 inch, which approximates the limit of micrometric measurement The difference between the highest and lowest averages of 100 corpuscles is 000009 or 1 111111 inch, which is within the limits of personal and instrumental error, according to the highest living authority upon this subject, who writes, in substance, that it is easy to measure 1-50000 inch, but to be sure of 1-100000 inch, is not possible

The conclusion to be deduced from the above figures is obviously that, when a sufficient number of corpuscles are measured, there appears to be an average size which varies within very narrow limits, which may possibly be accounted for or at least is consistent with personal and instrumental errors, for though he has carried out the figures to the sixth decimal place, he has not the presumption to declare that the results can be relied upon farther than the fifth place, and have carried out the figures to the sixth only to insure accuracy in the fifth so far as possible Another conclusion is, that granting for the moment that it is possible to identify blood by measurements of the red corpuscles, of which he is by no means satisfied, it is reckless in the last degree, if not criminal, to express an opinion upon the measurement of less than 100 corpuscles To express an opinion upon the measurement of only 10 corpuscles—as he is informed has been done in this section within the last year or two—to take the most charitable view of the subject, betrays such culpable ignorance of a subject involving such momentous consequences as ought forever to invalidate the testimony of one who should swear so recklessly In a case involving the issue of life and death it would be better to measure several hundred corpuscles

An examination of the unabridged table of measurements, from which the above summary is tabulated, discloses the further fact that by selecting the corpuscles it would be possible for a dishonest observer to make the average much larger or smaller than that above given, without the possibility of detection, a fact, the bearing of which upon the value of expert testimony upon this subject is so obvious as to need no comment

It will be seen that he has not attempted to draw any inference as to the cause of the larger average size of the corpuscles first measured Whether it was or not due to the drugs exhibited during the beginning of this work, is an interesting subject of inquiry, which must be reserved for future examination

EXTENSIVE ACNE VULGARIS, WITH INFLAMMATORY PAPILLOMA —DR C SCHADECK, of Kew, reports the case of a man, 23 years old, who was the subject of these affections His internal organs were sound, his skin and visible mucous membranes pale On the buttocks was a large collection of acne vulgaris, in different stages of development The head, face, neck, palm of the hand, soles of the feet, internal surface of the thighs, and the axilla were free of acne On the chest and back, besides the comedones (without inflammatory appearances) were inflammatory nodules, nodes and pustules (of acne) from which exuded on pressure the contents of the fat cutaneous glands mixed with pus and some dark venous blood It was evident that some of the larger nodes were due to the confluence of several small ones, and contained a gritty material (atheroma)

Besides these nodes and pustules there were found on the chest and back a large number of round, white scars On the skin of the lower portion of the abdomen and the groins, as well as on the skin of the nates and the sides of the body, there were scattered large, oval, irregularly formed infiltrates of a dark color, formed by the confluence of several inflamed acne nodes On the upper surface of the infiltrates were numerous punctiform openings, from which pus, blood and gland contents exuded on pressure Small infiltrates were numerous on the internal surface of the forearm, and the thigh and leg The infiltrated spots on the lower extremities had the following peculiarities they had the appearance of sharply outlined, flat, oval nodes and *plaques* about the size of a silver five cent piece to that of a copper cent, the upper surface being only slightly raised above the level of the skin, but they were deep seated, and covered with small brown specks, after removal there was a red, uneven, cribriform surface Most of the pin like openings were filled with a thick purulent material, removable by pressure In a few places the surface of the infiltrates was formed of new, soft cicatricial tissue Isolated infiltrates were surrounded by a dark-red region, and showed on the upper surface wart-like growths and cicatricial changes, and were probably due to a simple closure of the glands by an inflammatory process of the skin of the surrounding region, followed by hyperplasia of the stratum Malpighi, giving rise to wart-like growths (perifolliculitis, papilloma) The apices of the papillomatous growths were grown together, and between them were a few small abscesses

The treatment consisted of potash baths, with mercurial plasters to the larger infiltrates, some of these being incised and pressed Under this treatment most of the papillomatous infiltrates were absorbed within a month and a half, and the nodes and plaques were atrophied In five months the patient left the hospital cured —*St Petersb medicinische Wochenschrift*, No 50, 1885

STRETCHING THE SUPRA TROCHLEAR NERVE IN GLAUCOMA —DR BRAILEY read a paper on this subject at the late annual meeting of the British Medical Association Badal introduced the operation, in 1882, for ciliary neuralgia, and he thought that it might give good results in certain forms of glaucoma, and in sympathetic ophthalmia Abadie stretched it in a case of glaucoma, in which the eye continued hard and painful after sclerotomy and iridectomy He stretched the nerve until it ruptured, and then removed a piece of it one cm long Tension sank in three days to normal, vision slowly and slightly improved, and the pain was relieved He has since then reported cases where stretching was advantageously combined with iridectomy or sclerotomy, even in such an unpromising disease as congenital hydrophthalmos But he expressly states that he does not think nerve stretching can yet supplant iridectomy or sclerotomy, it should be reserved for intractable cases which have resisted all other measures He suggests its probable utility in congenital hydrophthalmos, and also in glaucoma in children secondary to anterior synechia, on the ground that the loss of the eye is due to continuous traction on the nerves entangled in the scar In glaucoma, he combines it with simultaneous sclerotomy Brailey has tested the efficiency of the operation to relieve ciliary neuralgia and to lower tension in six cases In one case he stretched the supra-orbital nerve also to compare the effect He reports the following cases

1 A man, aged 49, glaucoma, the result of iritis following a cataract extraction five years ago Tension slightly in excess a month after extraction, but for five weeks had been much heightened, and vision failed rapidly Supra-trochlear nerve stretched to rupture, and four mm excised In three days tension had fallen from +2 to +½, and in six days was normal Vision slightly improved Pain wholly relieved

2 A man, aged 67, *glaucoma absolutum* of right eye Tension +3, perception of light Sight lost gradually twenty years before, considerable pain Supra-trochlear nerve stretched Considerable suppuration of wound Tension gradually fell, and ten days later, was not more than +1 Pain entirely relieved, and had not recurred after some months

3 Woman, aged 41 Double iridectomy for glaucoma three years ago Still some tension in each eye, with continuous pain over left brow Eserine gave no relief Both supra trochlear nerves stretched Wounds healed rapidly Tension fell to full in right eye, and normal in left Pain entirely ceased for a month, then both pain and tension recurred, but neither symptom quite so acute as before Vision remained the same, $\frac{6}{60}$ right, $\frac{6}{24}$ left

4 Woman, aged 63 Left, absolute glaucoma, tension +3 vision nil, some pain, right, tension +3, vision $\frac{6}{12}$, inflammatory symptoms slight Stretching of both supra-trochlear and supra orbital nerves No relief of pain, though tension fell to +1 Subsequent sclerotomy, and then iridectomy right, with result that vision remained $\frac{6}{12}$, although tension continued +1 The other eye remained as hard as ever, and was finally enucleated

5 Man, aged 75, absolute glaucoma of left eye, with severe pain Stretching of supra-trochlear relieved pain much, but in five days it returned almost as bad as before Eye enucleated

6 Woman, aged 55, severe choroido cyclitis of both eyes As a last resort, the nerve was stretched on each side Pain was diminished for a time, but inflammatory attacks soon recurred

Brailey states that he intends, in future, to restrict the operation to diseases in which, on the strength of these cases, there is good ground to expect benefit, in the neuralgia of glaucoma absolutum, and in intractable cases of glaucoma generally He is satisfied that stretching the *supra orbital* nerves has no beneficial effect on the tension, and only doubtful, at best, on the neuralgia Stretching of the supra-trochlear, he believes, does have some influence on the tension, but it is not worth counting on, in this respect, as a remedy for glaucoma, though it is of use as an adjunct —*British Medical Journal*, Oct 10, 1885

Albuminuria treated by Fuchsine — Mr A T Barnard reports the following case, which came under the care of Mr W Mitchell Roocroft Wm R aged 40, was admitted to the Royal Albert Edward Infirmary, Wigan, on May 8, 1885 There was extreme anasarca of the head, face, and legs and ascites, the tongue was coated, the breath very foul, and the skin hot and dry On inquiry, he said he had been working for some time in water in the pit He complained of pain in the lumbar region The urine, on examination, was of a pale straw color, and acid reaction, of specific gravity 1015, there was a slight deposit, and it became almost solid with albumen on boiling, under the microscope, granular casts were found The quantity of urine passed was three to four ounces on the day after admission The following treatment was adopted a vapor-bath was to be taken three times a week, and a drachm of compound jalap powder every second morning He was ordered ℞ Tinct digitalis mx, tinct ferri perchloridi mx, aq chloroformi ad ℥j, to be taken three times a day His diet was ordered to consist solely of skimmed milk, eight pints daily

This treatment was continued until July 16, with the exception that the jalap powder was discontinued on June 15 During this period, the ascites and anasarca diminished, the amount of urine passed daily varied between sixty and seventy ounces, the amount of albumen also varied between one half and one third

As he did not seem to improve under this treatment, a grain of fuchsine (in the form of pill made up with compound tragacanth powder and extract of gentian) was prescribed to be taken three times a day, and he was allowed ordinary diet

On July 20, the dose of the drug was increased to two grains three times a day, the amount of albumen when the fuchsine was commenced being one third, the urine containing crystals of uric acid and waxy casts The urine (owing to the drug) now assumed a pinky red color, and the fæces were also colored

In ten days, the albumen was reduced to one-sixth, and on August 13, there was a mere trace, which continued until he was discharged (at his own wish), and made an out-patient, still continuing the fuchsine, which was now reduced to three grains in the day

His urine was examined every week or ten days, and on the last three occasions there was a total absence of albumen, and nothing microscopically, the fuchsine being reduced to one grain in the day

On September 30, the patient was discharged, and intended to recommence work —*British Medical Journal*, Dec 5, 1885

Faradic Electricity in Rigidity of os Uteri during Labor —Dr Mary Putnam Jacobi reports the following interesting case

A primipara was brought during a premature labor, occurring at seven months of pregnancy, to the N Y Infirmary in a state of considerable exhaustion resulting from the prolonged labor pains The external os was tetanically rigid I did not see the patient until after she had been for some time in the hospital, and the physicians in charge, Dr Blackwell and Cushier, had used all the most usual and approved means of relaxing the rigidity of the os, but without the slightest effect Even chloroform had failed, and the increasing exhaustion of the patient rendered this method hazardous to be persisted in It seemed to me that the tetanized condition of the os, which would barely admit the tip of a finger, and resisted manual dilatation to an extraordinary degree, was precisely due to the exhaustion of the nerve force destined to the uterine fibre The tetanus would then be analogous to the intestinal cramps of lead colic, to those induced in both the rectum and the genital canal by compression of the aorta (in rabbits), or, on an even more general scale, to the universal muscular contractions of rigor mortis If this were true—and surely the clinical history of cases of rigid os uteri tends to support the hypothesis—local stimulation of the exhausted nerve fibres was indicated as the remedy A small electrode was applied to the os, and connected with a faradic battery, the other electrode being held in the patient's hand It was considered desirable to avoid passing the current through the body of the uterus, lest new contractions should be excited and struggle in vain against an impassable resistance The application was continued for fifteen minutes Immediately afterwards, and for the first time, Dr Cushier succeeded in inserting a finger into the cervical canal, and after some further effort, in gradually effecting manual dilatation and delivering the patient with the forceps

Stimulus to the nerve fibres thus seemed to have succeeded in inhibiting the spasm into which the muscular fibre had been thrown, as is habitual when left to its own irritability —*American Journal of Obstetrics*, January, 1886

The Crico-Hyoid Muscle —Mr Walsham, in an article on Anatomical Variations, published in the *St Bartholomew Hospital Reports*, vol xvii, described a crico hyoid muscle, consisting of a slip composed of two muscular bellies, intervening between three tendons It arose from the lower border of the cricoid cartilage, just external to, and to the right of, the median line, and was inserted into the lower border of the hyoid bone, near the median line The muscle was tendinous at its origin, but at the upper border of the cricoid cartilage it became muscular, and at the lower border of the thyroid it again became tendinous A second muscular portion, of about three-eighths of an inch in length, existed in the tendon, opposite the middle of the thyro hyoid membrane Dr Wenzel Gruber, of St Petersburg, recognizes the fact that Mr Walsham was really the discoverer of the crico hyoid muscle He found this muscle in a male subject, dissected in October, 1884 After a minute description of the specimen under his observation, he admits, not only that it agreed in origin, course, and insertion, with that described by Mr Walsham, but that he and the latter anatomist only have discovered a true and distinct muscle properly called by the above name Zagorsky's crico-hyoid, described in 1809, was simply a separate slip of the thyro hyoid, lying on the inner side of the main part of that muscle A true crico hyoid cannot be said to exist unless the thyro-hyoid be well developed and undivided, and the crico-thyroid also free from any anomaly —*Brit Med Journ* , Nov 28, 1885

COCAINE IN DISEASES OF THE NOSE, LARYNX AND PHARYNX —PROF SCHNITZLER gives an account of one hundred cases in which he has used cocaine in diseases of the nose, larynx, and pharynx In operations upon the tonsils, and in hyperæsthesia of the pharynx the results from its employment are satisfactory, but he does not think it especially useful in acute pharyngitis Though it gives good results in operations upon the larynx, he does not regard it as advantageous in laryngoscopic and rhinoscopic examinations The results of its use in irritative cough, laryngeal catarrh, acute and chronic, and in laryngeal tuberculosis were very favorable Glycerine is regarded by him as a useful adjuvant to formulæ containing cocaine The following is a good mixture for general use

℞ Hydrochlorate of cocaine	2–5 parts
Glycerine	20 "
Water	80 "
M	

When it is desirable that the anæsthetic effect be continued for some time, Schnitzler recommends the following

℞ Hydrochlorate of cocaine	2–5 parts
Morphine	2 "
Glycerine	
Water of each	50 "
M	

The following is recommended for insufflation

℞ Hydrochlorate of cocaine	2–5 parts
Acetate of lead	20 "
White sugar	80 '
M	

or

℞ Hydrochlorate of cocaine	2–5 parts
Subnitrate of bismuth	
White sugar of each	50 "
M	

He uses a solution of 1 to 500 for nasal injections and for inhalations —*Centrabllatt fur Chirurgie*, No 51, 1885

THE APPLICATION OF NAPHTHOL TO SOME FORMS OF CUTANEOUS DISEASE —P SOMBRET (*These de Paris*) gives the following *resume* of the advantages possessed by naphthol in the treatment of some forms of skin disease

1 The preparations are odorless, and stain neither the skin nor clothing

2 In the use of naphthol, with the precautions advised by Kaposi, there are observed neither forms of intoxication (albuminuria, coloration of the urine) nor active inflammation of the skin

3 In scabies, naphthol is an excellent parasiticide, and exercises a very beneficial effect upon the eruption due to the disease

4 In pediculosis the remedy is efficacious, and its use is free from danger and inconvenience

5 In psoriasis, no satisfactory effect has been observed

6 In prurigo (of Hebra) naphthol causes the itching to disappear rapidly, and has beneficial effect upon the eruption It, nevertheless, does not possess a curative power in this disease greater than that possessed by other remedies —*Revue des Sciences Medicales*, July, 1885

HIPPURATE OF SODA IN URIC ACID DIATHESIS —Garrod has already shown the effect produced by hippurate of soda on the decomposition of uric acid, and DR BON highly recommends it in affections characterized by an excess of uric acid The following are convenient formulæ·

℞ Hippurate of soda	grm	5
Carbonate of listeria		1 50
Glycerine		15
Distilled canella water		250
M		

Dose —15 grammes four times a day

℞ Hippurate of soda	grm	6
Chlorate of potash		1 50
Simple syrup		20
Peppermint water		200
M		

Dose —15 grammes four or six times a day

—*Nouveaux Remedes*, Jan 1, 1886

RESORCINE IN EPITHELIOMA —DR RUBINO ANTONIO reports a case in which he successfully applied resorcine to an epitheliomatous tumor, about the size of a pea, on the side of the nose of an elderly man The tumor was apparently attached to the bone, and surrounded by an area of reddened and infiltrated skin An ointment containing 15 parts of resorcine to 20 of vaseline was applied twice daily after the tumor was washed with permanganate of potash solution The discharge diminished, and the tumor grew smaller, until at the end of five months nothing was left except a small cicatrix —*Giornale Internaz delle Scien Med*, Oct, 1885

IODOFORM IN CONSUMPTION —DR VESTE, after having used iodoform in phthisis for some time in the form of inhalations, says that he has obtained very good results from it, either on the local morbid processes or on the general condition of the patients Given internally it produces no good effect and it increases the fever In apyretic and non-tuberculous cases it has caused increased destruction of nitrogenized tissues, and Veste thinks, consequently, that this accounts for the increase of the fever It does not reappear in the urine when given internally, but is thus found when used externally —*Les Nouveaux Remedes*, Jan 1, 1886

SOLVENTS OF BINIODIDE OF MERCURY —In a recent communication made to the Académie de Médicine of Brussels, M MEHU stated that castor oil is one of the most powerful solvents of the biniodide of mercury, in the proportion of grm 1 to 50 The addition of iodide of potassium adds to this solubility Lard only takes up grm 4½ to 1000, and vaseline grm 1 to 4000 Carbolic acid warmed to 212° F dissolves about grm 20 to 1000, but half of this is precipitated on cooling At ordinary temperature benzine dissolves grm 4 to 1000 —*Presse Med. Belg*, Oct 18, 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, JANUARY 23, 1886

EXPLORATIVE LAPAROTOMY

The subject of laparotomy for diagnosis was very tersely put by Mr Lawson Tait during his recent visit to this country, when, on being asked for an opinion regarding the nature of an obscure abdominal tumor, he said "Cut the patient open and find out" And it is interesting to know that that patient was cut open, and saved by hysterectomy from almost certain death Surgeons are beginning to understand that laparotomy is not such a dreadful operation after all That it is a capital operation must be admitted, but so are many others that no surgeon hesitates to perform The idea is rapidly becoming a thing of the past that the peritoneum is a structure which must not be touched

In his Address as Chairman of the Surgical Committee of the Medical Society of the County of Kings, delivered in October, 1885, DR GEORGE R FOWLER made some most suggestive remarks on the subject of "Explorative Laparotomy" The Address was worthy a bold, skilful operator In speaking of the work done by Mr Tait and Mr Treves, he says "But there is yet room for missionary work before men, and good men too, can be induced to come out of their shell of conservatism, so called, and with a bold front help to break down the prejudices and misgivings based upon an ill-founded fear of the peritoneum and its behavior under the knife" It is not a week since a New York surgeon expressed himself as having as little fear of opening the peritoneum to day as he had of operating upon a cervix uteri five years ago Dr Fowler divides the cases calling for explorative laparotomy into four classes 1 Cases in which a diagnosis cannot be made without opening the abdomen and exposing the parts to the direct touch, or even perhaps to the sight, of the surgeon, but in which further interference is thereby shown to be impracticable or uncalled for 2 Cases in which a provisional diagnosis only can be made, unaided by abdominal incision, and in which but slight additional risk is incurred by an immediate and radically curative procedure, based upon the knowledge thus gained 3 Cases in which a diagnosis has been made, but in which doubt exists as to the practicability of performing a radical operation, and cases in which the choice of the particular operation best adapted to the individual case must be decided upon after incision and exploration 4 Cases in which the patient's life is in imminent peril, and in which it becomes imperatively necessary to at once locate the lesion threatening life, and to be prepared to act promptly upon the knowledge gained by opening the abdominal cavity

The cases to be included under the *first* class are, as said, those in which an operation would be impracticable or is uncalled for, and if any benefit is derived it is not from any design on the part of the operator It is well known that there are many cases of severe pelvic or abdominal pain in which a diagnosis is impossible without an operation, though the symptoms give a strong suspicion of chronic ovaritis or salpingitis In some cases nothing can be found by an operation to account for the pain and other symptoms, and yet they disappear promptly after the operation In this first class also may be included cases of recurring ascites in which peritoneal disease is suspected, and cases of traumatic peritonitis, "in which incision is made and drainage supplements the otherwise purely explorative operation In cases under the *second* class a partial diagnosis has been made, sufficient with the symptoms to show that the patient's life is in danger and that something must be done Here, as in cases coming under other classes, there is sufficient obscurity to make the surgeon wish—as thousands have wished—that he had his hand inside "As illustrative of this class of cases, chronic ovaritis, or salpingitis, with or without hydro or pyosalpinx, may be cited In some of these cases, although attended with considerable difficulty in making a positive diagnosis, yet the suspicion amounts almost to a certainty Here an opening sufficiently large to admit the introduction of the index finger will clear up the doubt" So also may perforations, diseased conditions of the vermiform appendix, and other affections be diagnosticated "It is no argument against explorative laparotomy in this class of cases to say that the adhesions limiting and walling in the seat of perforation and extravasation of fæcal matter would thereby be prevented from forming" These adhesions occur but rarely, and even when they are formed the patient's life is endangered by the probable rupture of the resulting abscess, and "when they do not form at once, oftentimes perforation, diffuse peritonitis, and, in consequence, certain death, is the rule" In this class of cases, predicts Dr Fowler, explorative laparotomy will be the means of saving many lives

In the *third* division Dr Fowler places cases in which a diagnosis has been made, but some doubt still exists as to the practicability of performing a radical operation In this sense he thinks that most cases of ovariotomy and hysterectomy may perhaps be looked upon as being, in some degree, explorative operations, as easily seen by the number of cases in which an operation has been commenced, but abandoned on account of the high improbability of success Hence the wisdom of always making, as our author advises, the incision as if for simple explorative purposes, when, if the operation be found impracticable, the wound to be healed is not so large "Explorative laparotomy will also prove useful in cases in which chronic intestinal obstruction may occur, and the question may arise regarding the propriety of attempting to relieve the obstruction after determining its location and nature Resections of a portion of the gut or of the pyloric extremity of the stomach in stenosis at that point are instances in illustration Cases of uterine fibroma of small or medium size, which, because of exhausting hæmorrhage, demand interference, will require a preliminary explorative operation before a choice can be made between simple removal of the appendages or a hysterectomy" Of course in the greater number of cases removal of the appendages is sufficient and perfectly practicable, but now and then a case is met with in which the only choice is between the more formidable operation and closure of the incision without completing the operation

The *fourth* and last class includes those cases, as we have seen, in which the patient's life is in imminent peril, and something must be done at once both to locate the lesion and to apply means for its relief And strange to say, this is the class in which the so-called conservatism is most frequently shown Illustrative cases of this class are those of gun shot wounds of the intestines, rupture of an extra uterine pregnancy, perforation of intestine during typhoid fever, rupture of an abscess into the peritoneal cavity, or rupture of the urinary or gall bladder, or of rupture of the pregnant uterus, with escape of the fœtus into the abdominal cavity, as reported by Plenio, in a recent number of the *Centralblatt fur Gynakologie*, in which the patient's life was saved The successes of Bull and Hamilton with gunshot wounds of the intestines are alone sufficient to warrant an explorative laparotomy when such cases occur, and in regard to operating for ruptured extra uterine pregnancy we need only refer to the successes of Mr Tait Almost two years ago Mikulicz reported a successful case of laparotomy and suture of the intestine for a ruptured typhoid ulcer He has reported an unsuccessful case of operation for rupture of the stomach, but the patient was collapsed before the operation was begun, and an unsuccessful case of operation for perforation of the vermiform appendix, but it was not undertaken until twenty-three hours after the accident Lloyd reported a case, unsuccessful, for gunshot wound almost three years ago, but the operation was not performed until the fourth day So far as we are aware the successful cases have been those in which the operation was performed early Nevertheless it seems that, when the surgeon sees the patient at a late date for the first time, he should still perform the operation

---

In connection with the latter part of the preceding paragraph it may be asked whether commencing or existing peritonitis contraindicates an operation Fortunately, the successes and experiences of Schramm, Boully, Israel, Litten, Keith, Wells, and others have already given a negative answer to this question Peritonitis occurs but rarely after operations compared with its frequency after accidents, and it has several times been shown that it rapidly subsides, when due to traumatism, after an operation has been performed, the abdomen washed out and drainage established As regards the operation itself, Mikulicz says, in *Sammlung klinischer Vortrage*, No 262, that it is a secondary question to that of diagnosis, that is to say, he does not now hesitate to perform laparotomy in cases in which the symptoms point to an early death as he did a few years ago Consequently, as these cases may imperatively demand an operation, the easiest and surest way to get out of the difficulty is to make an explorative laparotomy This establishes the diagnosis, and if an operation be demanded the first steps have already been taken The risk to the patient is very much less when the operation is performed before a local peritonitis has become general

---

The importance of laparotomy for diagnosis is well illustrated by a case reported by DR W GILL WYLIE, at a recent meeting of the Obstetrical Society of New

York The patient, who had a tumor which had been diagnosticated as an extra-uterine pregnancy, had an attack of syncope, followed by profuse diarrhœa, and the tumor subsided Dr Wylie made an incision and found a huge pyo salpinx, which was removed The patient recovered Some time before this electricity had been applied for ten days for the supposed extra-uterine pregnancy

THE TREATMENT OF CHRONIC HEART DISEASE BY MEANS OF BATHS AND GYMNASTIC EXERCISES

As stated in our preceding editorial article upon this subject, (THE JOURNAL, January 16,) DR SCHOTT advises the baths for patients with disease of the heart in the stage of ruptured compensation to be diluted and but gradually brought up to the strength of the natural waters of Bad Nauheim The strongest of these, he says, contain from two to three per cent of the chloride of sodium, and from a half to one per cent of the chlorate of lime, and three grammes of CO_2 to the litre of water Only as the vigor of the heart increases, is the individual given a bath containing carbonic acid gas

As in the case of the salts, the proportion of the gas is increased by degrees, until the bather is able to endure the saturated and powerfully charged water of the natural spring In order to artificially impregnate the bath with carbonic acid gas, Schott uses equal parts of bicarbonate of soda and a 42 per cent solution of hydrochloric acid He begins with a kilo of each to 250 litres of water The soda is at first dissolved, after which the acid is added by allowing it to flow by its own weight out of the mouth of a bottle, held beneath the surface close to the bottom of the tub, and cautiously moved about The impregnated water must then be kept as motionless as possible, in order that it may not part with its gas However great the care observed in charging the bath, a layer of gas will form above the water, this must be gently waved aside If now a person be immersed in such a bath, his body becomes covered with a layer of gas bubbles and the skin assumes an erythematous blush The cutaneous irritation thus produced is very beneficial Such a bath stimulates the muscular and nervous systems, and excites circulation and respiration of a healthy person, while upon a diseased organism, Schott believes the effect to be still more pronounced

Beneficial as in an artificial bath, the natural water, which at the spring gushes over the body of the patient, exerts a far greater and more beneficial stimulation The venous hyperæmia, consequent upon the cardiac disease, is relieved, the arterial system is better filled and the weak heart by reason of lessened internal pressure is enabled to contract upon its contents more efficiently The dilatation of its cavities due to impeded circulation is diminished, while, in consequence of the ampler flushing of the coronnary arteries with blood, the heart-muscle becomes better nourished Schott appears to attribute all this improvement to stronger ventricular contractions, as the primary result of the bath It seems to us, on the contrary, that the increased vigor of the systole is secondary to the derivative action of the bath, by which the blood is called from the capillaries and veins into the arterioles

Now come Schott's system of giving gymnastic exercise and its effect This is very simple but methodical, and consists of movements designed to call into play the chief muscles of the entire body Space forbids a detailed description of these It suffices to say, the arms, trunk and legs are successively extended, flexed and rotated against slight resistance This resistance is preferably obtained through another person, who exerts gentle pressure with the hand upon the extremity in a direction opposite to that in which it is to be moved The exercise must never be carried to the point of noticeably accelerating the respiration The patient is directed to engage in conversation while exercising, and so soon as his utterance becomes embarrassed by breathlessness, or the attendant observes that his nostrils begin to manifest labored respiration, the movement is stopped until tranquil breathing is regained Schott claims that, if systematically and judiciously carried out in regular cycles of movements from the upper to the lower extremities, this gymnastic exercise proves not only not monotonous, but also extremely beneficial Not only do the muscles generally become developed, but that great involuntary muscle, the heart gains in strength Moreover, the same effect upon sluggish venous circulation is exerted as by the employment of balneotherapeutics Either treatment alone, is considered by Schott as curative, but when combined their effect is said to be astonishing

Schott does not claim that the valvular lesions themselves can be removed, any more than the structurally altered cardiac muscle can be restored to its original form elements He declares only that by this method of therapeutics hypertrophy may once more be made to gain the upper hand over dilatation This certainly looks reasonable, and the management of this class of cases by other than chiefly medicinal agents is rapidly taking rank among the most approved and advanced therapeutics As Schott says, the time is fast approaching when the practitioner who does not recognize and employ baths and exercise in the treatment of chronic heart disease, will be considered as either ignorant or culpably remiss. It may be considered troublesome, but the practice of medicine is full of measures, the employment of which is tedious and troublesome both to physician and patient.

We cordially recommend to the doctors in charge of appropriate hot springs that they investigate and adopt the suggestions of Dr. Schott in connection with their resorts. Why should we Americans allow our Teutonic confrères to monopolize this line of treatment, or, even employ it with greater system and thoroughness than we? Let us show them that we too are wide-awake.

THE PHYSIOLOGY OF DISSEMINATED SCLEROSIS

DR. JEAN GASTERNATZVY reported about four years ago the results of some experiments on dogs and cats, which show that the trembling observed in disseminated *sclerose en plaques* appears, as regards its origin, to be a consequence of a lesion of a certain extent of the antero lateral roots of the spinal cord, which transmit the impressions which determine voluntary movements. He now reports, in *Le Progres Medicale*, of December 26, the results of experiments made to determine the source of the tremblings in cases in which there is no lesion of the cord, setting out with the supposition that they are the result of some alteration of certain portions of the brain, of the grey matter of the cerebral hemispheres, for example.

In some of his experiments in which he pricked the antero lateral roots of the lumbar plexus, in order to obtain intentional trembling, excitation of the psychomotor centres with a faradic current, after anæsthetization of the animal, caused marked trembling not only in the posterior extremity, the nerves of which issued from the cord at the level of the parts irritated, but also in the anterior extremity, the medullary centre of which was in a normal state. Having noticed this phenomenon, he thought that the trembling in the anterior extremity under these circumstances was perhaps the result of chloroformization, or due to the enfeeblement of the physiological functions of the psychomotor zone, caused by the chloroform. This hypothesis was confirmed by the fact that he was obliged to apply a faradic current of much greater intensity than that usually necessary to cause certain movements of the limbs in a non-chloroformed animal.

The hypothesis was proved to be correct by the following experiments. The psychomotor zone of one side is laid bare, the dog not being narcotized, the psychomotor centre of one extremity is then irritated by a faradic current from a Dubois-Reymond apparatus. The animal is then chloroformed, and the same point in the psychomotor region is again irritated. This must be done very carefully in order to avoid injuring the centre, the electrodes being applied only two or three times and very lightly. In the first experiment irritation of the psychomotor centre of the anterior extremity caused feeble flexion of the left leg with the bobbins at a distance of 200 mm., at 150 mm. the flexion was very strong. The animal was then chloroformed, and five minutes afterwards there was no movement with a separation of 200 mm., and only very feeble flexion with 150 mm. separation. After twenty-five minutes irritation of the centre of the same extremity gave rise, with 150 mm. separation, to feeble flexion with tolerably well marked trembling. Thirty five minutes after anæsthetization, irritation of the same centre caused, at 150 mm., very feeble flexion with very marked trembling in the left leg. Other experiments were made in the same manner, which showed that under the influence of chloroform the excitability of the cortex of the cerebral hemispheres gradually diminishes, the movements become enfeebled at the same time, and the trembling then appears.

In another experiment the psychomotor zone was laid bare on the right side, the animal not narcotized. The centre of the anterior extremity was touched, with the bobbins 250 mm. apart, which immediately caused an epileptic attack with dilatation of the pupils, and spasms which were at first tonic, but then became clonic. After complete chloroformization, with a separation of 50 mm., irritation of the same centre caused irregular and interrupted contractions in the left extremity, without an epileptic attack. This experiment well illustrates the degree to which chloroformization enfeebles the excitability of the grey matter of the hemispheres, since the bobbins had to be brought 200 mm. nearer together than before the animal was chloroformed. In these experiments with faradic currents only the grey matter was irritated, and it is seen that the intensity of the current had to be increased in order to obtain certain movements when the animal was anæsthetized. It must therefore be concluded that the excitability of the psychomotor zone was diminished by the influence of the anæsthetic. On the other hand very pronounced trembling appeared only after the animal was chloroformed, which seems to show positively that it was due to the enfeeblement of the functions of the psychomotor centres.

The practical deductions from these experiments are of great importance in showing that these tremblings have their seat of origin in the grey matter of the cerebral hemispheres As an example, Gasternatzvy cites the paralytic trembling seen in persons affected with progressive paralysis of the insane The essential lesion in this disease consists in part of peri encephalitis, and it is well-known that this pathological process causes atrophy of the cortex, with disappearance of the nerve elements and proliferation of the connective tissue, pigmentation, etc , as shown by Meynert, Huguenin, Magnan, and others, and it is probable that these products cause irritation of the nerve cells of the cortex before they have entirely lost their functions "On the other hand, the paralytic trembling, one of the more important symptoms of this disease, furnishes us certain signs which show its dependence upon the grey matter of the cortex 1 This trembling is general, and its existence in all the voluntary muscles of the body shows that the lesion which causes it is found in a part of the nervous system with which all these muscles are in communication, and the grey matter of the cerebral hemispheres in this region 2 This paralytic trembling always accompanies other symptoms which, as is known, undoubtedly depend on certain lesions of the grey matter of the brain, for example, the symptoms of progressive dementia, analgesia, epileptiform attacks, vaso motor phenomena etc 3 At the commencement of the disease the trembling is scarcely sensible during slightly extensive delicate movements, which are ordinarily the most complex and most coordinated, as the disease gradually advances trembling occurs Finally, in the last period of the disease the trembling causes complete paralysis of all psychomotor or voluntary movements Consequently a relation exists between the paralytic trembling and the other symptoms of the disease on the one hand, and on the other with the progressive development of the pathological process of the cerebral cortex, which constitutes the essential lesion of the disease "

Dr Dmitry Egorovitch Min, one of the most distinguished members of the Russian profession, recently died in his 68th year He was the founder of the Museum of Forensic Medicine in Moscow, was Professor of this branch in the University of that city, and educated the first experts for the reform courts A good poet and an excellent linguist, he probably did as much for general literature as for his profession, having translated in verse *King John*, *Don Juan* and *Siege of Corinth*, Schiller's *Song of the Bell*, Tasso's *Liberated Jerusalem*, and the *Divine Comedy*

SOCIETY PROCEEDINGS

SUFFOLK DISTRICT MEDICAL SOCIETY

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE

Regular Meeting, December 9, 1885

The Chairman, F J Knight, M D , in the Chair

Albert N Blodgett, M D , Secretary

Dr G M Garland, of Boston, read a paper on

SOME CASES OF REFLEX NEUROSIS

(See page 62, Journal of January 16)

Dr Rotch said that the cases described by the reader were of unusual clinical importance from the fact that they occurred in adults, in whom symptoms of reflex origin are rare in comparison with infants and children, where this class of cases reaches its highest development, owing to the hypersensitive condition of the child's nervous system These reflex phenomena are so pronounced in early life that we recognize in them the most serious obstacle to our making an accurate diagnosis, knowing well that any one of them may at times represent many and entirely opposite forms of disease, although the lack of speech of the infant, and the incorrect answer of the older child appear, at first, to offer the greatest barrier to a proper appreciation of the case As general examples of reflex symptoms, we have the different forms of eclampsia, the vomiting of cerebral disease, and the earache arising from irritation in the mouth during the dental periods He mentioned some special cases occurring in his own practice which seemed to illustrate the class of cases referred to in Dr Garland's paper

Case 1 —A child two years old was seized with dyspnœa and cough, which continued until a purulent discharge from the ear drew attention to that organ, and inflammation of the Eustachian tube was followed by immediate relief to the symptoms There had been no other signs of aural disease, and a physical examination had disclosed nothing abnormal in the heart or lungs

Case 2 —A child four years old had a chronic otorrhœa , whenever treatment directed to the ear stopped the discharge, the child began to have what appeared to be a laryngeal cough, though nothing abnormal could be found anywhere on examination of the air-passages, the cough would continue until the discharge from the ear returned, and then would cease, and this reversal of symptoms would occur four or five times in a year

Two cases seen in consultation with Dr Minot presented the following peculiarities, illustrating the difficulty of making a diagnosis from the rational signs, on account of misleading reflex symptoms Case 1 had pneumonia of the left dorsal base Case 2 had acute inflammation of the middle ear When seen by Dr Minot, the child with pneumonia had normal respiration, no dyspnœa, pale skin, and was sleeping quietly, while the child with ear trouble had respirations of sixty to seventy, dyspnœa, flushed face, and was relieved by inflation of the Eustachian tubes

Rosenstein's case of supposed purely reflex neurosis of the intestine is worth mentioning A boy nine years old began to vomit fæcal matter, and, at at the same time, to have fæcal discharges from the rectum This continued for five weeks, with short intervals, and finally disappeared and did not return Enemata in this case caused both rectal discharges and stercoraceous vomiting, and the treatment which finally gave relief was the administration of bromide of potash and chloral

Another class of cases supposed to arise from gastric irritation is the so called asthma dyspepticum—in which infants and children are seized with rapid respiration, dyspnœa and cyanosis, the temperature remaining normal, and nothing but harsh respiration being found on examination of the thoracic organs These symptoms are promptly relieved by an emetic, and are probably due to irritation of the vagus

Under the head of a reflex neurosis we may also possibly classify peculiar nervous phenomena which I have met with at my children's clinic at the Boston Dispensary, where the sole symptom in one case, a boy of five years, was hiccough, lasting for many weeks, and in another, a boy of nine years, gasping respiration occurring every three or four minutes We must, however, allow that these last two cases might have been symptomatic of hysteria, or of simulated disease for the purest type of the disease hysteria is represented in young children, especially in the first four or five years of life, where the simulated symptoms of the malingerer, marked examples of which I have met with would be extremely unlikely to arise as a complication

Finally, there is a class of cases in which I am especially interested, and which, after carefully investigating, and having ample opportunity for following closely and making a precise eliminative differential diagnosis, from digestive disturbances and organic disease of the stomach, I am forced to consider a reflex neurosis, connected possibly with the great abdominal ganglia of the sympathetic, perhaps some shock to these ganglia causing a temporary paralysis of the controlling sympathetic nerve filaments of the stomach, resulting in uncontrollable gastric peristalsis The patient, whether infant or child, is in perfect health up to the onset of the attack, it then suddenly begins to vomit, and this, in some cases, is repeated regularly every fifteen minutes by the clock, for many hours, or it will vomit, then seem pretty well for twelve or even twenty four hours, and then have continuous vomiting for eight or ten hours, then the intervals of vomiting grow longer, and the attack stops suddenly in about thirty-six hours, after which the patient rapidly regains its strength, this may occur many times during the year, then may omit for a whole year, but pretty surely returns, and usually lasts until puberty Absolutely no other symptoms could be discovered in these cases, excepting great thirst and prostration, following the loss of fluid from the body, and the mechanical fatigue The temperature was usually found to be normal, and the bowels not especially constipated, the cases were evidently not induced by the ingestion of improper food, in young infants, the prostration was at times so great as to produce serious doubts as to their recovery All treatment directed to controlling the vomiting has so far failed, the disease apparently being self limited, but the main factor in supporting the patient's strength during the attack is to from time to time, according to the pulse and general aspect, produce sleep, which is accomplished by enemata of bromide of potash and chloral, which at times also seem to render the intervals of vomiting longer, though they do not materially shorten the length of attack The late Dr Calvin Ellis saw a number of these cases, and considered them of reflex origin Dr Minot also was of the same opinion when he saw a case of this kind with me I have never heard of a death from this disease, but I think that in young infants it might occur from exhaustion unless sleep could be produced I am inclined to attribute the cause clinically to exhaustion of the sympathetic from some shock, perhaps mental, in peculiarly sensitive subjects, and I have arrived at this conclusion by a process of careful elimination, no definite point of irritation so far having been discovered in other parts of the economy nor any proof that there has been irritation of the gastric terminal filaments of the vagus

The cases occurred at all ages and among all classes, and I would say once more that the theory which I have advanced as the cause of this disease is the result of six years' clinical study of special cases, and that I present it to this Section for Clinical Medicine with much modesty, for so far as I know, no one else has as yet concurred with me in my idea as to the sympathetic ganglia being the nidus of the disease, although all agree, so far as I know, that it is of reflex origin

DR HENRY I BOWDITCH said that he was much interested in the subject of the paper, which is a matter of great importance to the physician The cases mentioned by Dr Rotch do not fall into the same category as those contained in the paper Dr Bowditch never thought of these cases as caused by a reflex neurosis, but as caused by some disturbance of digestion It is to be regretted that the reader has not given us a *resume* of the present state of science on this subject

Dr Bowditch spoke of a woman whom he had recently seen, in consultation, who had some menstrual trouble, accompanied by constant cough No positive causes could be found for the symptoms, but a sensitive spot was discovered in the lower right abdominal region The diagnosis of threatened abscess of the broad ligament was made, with tumefaction of the ovary This was the cause of a severe cough which was in this case evidently of reflex origin

DR BLODGETT mentioned a case in which a man of middle age was the subject of a periodical attack of what he called "biliousness," which always commenced by a feeling of dull distress in the region of the liver, and was soon followed by a swelling of the lower jaw, but upon the other side, that is to say, on the left The swelling is very painful, so that the patient is obliged to give up all business and keep the house, and at times to remain in bed   The curious part of the case is that a prompt cathartic will cause the swelling of the jaw to disappear in a few hours, with complete relief to all the symptoms   The jaw gives no further trouble until another attack of "biliousness" occurs, when the former symptoms reappear in all their intensity

Dr Garland in closing the discussion, stated that our present knowledge of reflex phenomena is not at all satisfactory   In Germany much interest is at present manifested in the subject of reflex neurosis, and cases are reported corresponding closely to those described by Dr Rotch   Dr Rotch's case of vomiting well illustrates in children the same phenomena which Professor Leyden has noticed in adults, and Professor Leyden reports a case of this kind where the post mortem examination showed no organic disease, and where the symptoms during life consisted merely of continuous vomiting   This subject also occupied largely the attention of the German Congress of 1884, and the discussion was opened at that time by Professor Leube   Dr Garland also said that a year ago, he had met with a case which illustrated this condition of gastric neurosis, the symptoms being vomiting and the autopsy negative

Dr H C Haven read a paper on

THE ETIOLOGY OF RACHITIS

(See page 91)

Dr Rotch in opening the discussion, stated that he did not remember the exact number of the cases of rachitis which he had seen at his clinics at the City Hospital, Boston Dispensary, and Children's Hospital during the last two years, but that he had collated them, and that he was under the impression that the number of cases where it occurred in colored children, was small in comparison to the white   This might, however, be accounted for by the fact that his clinics were not situated in a colored district, while the Dispensary of the Infant Hospital was in a portion of the city thickly populated by the colored race   This might bring a larger number of colored rachitics under Dr Haven's care, but still would not account for the large per cent of rachitics among the whole number of colored patients   He agreed with Dr Haven as to the probable influence of climate as a cause, but he also offered the following suggestions as perhaps aiding the future study of the subject   It has been noticed by some of our Dispensary physicians that venereal disease is especially common among the colored portion of the population   If this be so, and syphilis is more common among the colored people, hereditary syphilis would also be more common, and although we recognize that there is no direct connection between syphilis and rachitis, yet, for some years, the most prominent physicians in children's disease in Germany have held that even where hereditary syphilis has been cured, these same children are more apt to have rachitis than those who have not had syphilis, simply from their syphilis having left them in a condition favorable to the development of a disease, such as rachitis, represented by impaired nutrition

Dr Rotch also said that the number of rachitics which were presented at his clinics had increased during the last six or seven years, and that he remembered being struck by the small number of cases of rachitis, which he encountered among large numbers of poor children who came under his observation on his return from Vienna some years ago, where the number at that time was much larger proportionately than in Boston, and yet where the physicians insisted on calling the disease the "Englische Krankheit "

He also drew attention to the results of autopsies observed by himself and others, pointing towards a possible rachitic condition of the bones of white children, without any manifestation of this condition during life, the cases being merely diagnosticated and treated as debility from impaired nutrition   Thus a well-marked rosary is at times found on the inner surface of the costal cartilages, where no suspicion of such a condition was detected during life, and it may be that there is a greater predisposition among the colored race to show the external manifestations of rachitis among the whites

Dr Bowditch said that Dr Haven had made an important addition to our knowledge upon the racial and climatic relations of rachitis, and expressed the hope that he would carry on on his observations to a still further extent, and by means of the United States consuls and other officers of the government, obtain information as to the condition of the colored populations in Africa

Dr Haven replied that he had endeavored to obtain the desired information from the National Library at Washington, but had not been successful

Dr F B Harrington, of Boston, then read a paper on

THE PULMONARY COMPLICATIONS OF TYPHOID FEVER.

(See page 86)

Dr Vickery remarked that in the stupor which is often associated with typhoid fever, it is easily possible that portions of food may be aspirated into the lungs, thereby inducing a pneumonia from the presence of the foreign body in the air passages

Dr Bowditch stated that in typhoid fever there is often a lack of the more striking symptoms belonging to other serious diseases, so that they may often be easily overlooked   All febrile diseases present the same general features as certain cases of typhoid, and many cases are, no doubt, ranked as typhoid which are in reality something else   It is certain that many pulmonary affections are ranked as typhoid which have nothing to do with that disease

Dr Haven showed an

IMPROVED FORM OF STETHOSCOPE,

consisting of an ordinary Camman instrument, in which the usual flexible tubes are replaced by similar tubes about two feet in length, which allows the physician to stand at a somewhat greater distance from the patient, and in some cases as, for instance, in the presence of pediculi, is a source of great comfort   In the examinations of children it is of much convenience, as it allows greater adaptation to the movements of a fretful patient   It is quite portable, and gives almost the same concentration of sound as does the ordinary instrument

Dr Haven also showed an

IMPROVED FORM OF NURSING BOTTLE,

by which the natural conditions are more perfectly imitated than in the forms of bottle generally in use It consists of a flattened and elongated glass bottle, one side of which is removed so that the atmosphere may exert its normal pressure on the contained fluid, and thus imitate the normal conditions of infant feeding Another desirable feature is that every part of the bottle is accessible to cleaning, and a rubber nipple is used in which several fine holes are made by a cambric needle The effort of suction by the child is sufficient to excite the salivary glands of the child's mouth, and thus promote the normal digestion of the food

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, December 16, 1885

THE PRESIDENT, W W JOHNSTON, M D,
IN THE CHAIR

T E MCARDLE, M D, SECRETARY

Dr J F Hartigan presented a specimen of

RUPTURE OF THE ILEUM,

all the coats of the gut having been ruptured by a kick on the abdomen The patient and his assailant were adult males No external marks of violence could be found The intestinal contents were emptied into the abdominal cavity and the man died of collapse and peritonitis two days after the injury The wound was necessarily fatal, but he had presented the specimen as having some bearing on the subject of laparotomy He has made autopsies on five persons who died from kicks on the abdomen In three of them there were no external evidences of violence One died from the kick of a horse, two were kicked by mules, one by a woman, and the fifth by a man

Dr Richey reported a case of

CHRONIC SIMPLE GLAUCOMA TREATED WITH ESERINE

Patient was a female, aged 37, with absolute glaucoma of the left eye The vision of the right was $\frac{20}{200}$, much blurred She had seen the halo at 18 years of age, and thought she did so with the left eye, which did not become blind until seven years ago T 3, pupils half dilated, shallow anterior chambers, anæsthetic cornea in both, though she thought the left had been affected only since the other became blind No pain or inflammatory symptoms at any time The treatment was liq potassi arsenitis, gtts ij, t i d, iodide of potassium, grs v, after each meal Eserin sulph (gr 1/8 f ℥) instilled, twice a day, and dry cups to the right temple

Under this treatment from January 21 to March 28, 1885, *tension* became normal, $V = \frac{20}{20}$ Anterior chambers natural and pupils normal in size Eleven months later the condition was the same He prefers eserine to pilocarpine because it is not so spasmodic in its action, and the eserine in mild solutions, thinking they are less likely to cause follicular conjunctivitis, as reported by De Wecker

Dr Swan M Burnett said that we knew just enough about glaucoma for the imagination to run riot As to actual facts, however, we are sadly deficient in knowledge There is no disease that the ophthalmic surgeon fears as much as glaucoma Dr Richey thinks he has cured this case with eserine, but Dr Burnett doubted if in six other cases one would be benefitted He thought the doctor had not given sufficient credit to his great care of the patient's general health He had seen so many things tried in vain for the treatment of this disease that he had begun to believe that we can not rely upon anything The disease is slow in its progress and may go on from year to year without increase of tension One of the leading ophthalmologists of Paris says that an iridectomy for this disease is pernicious in its effects, the patients get worse This fact was verified by some cases under Dr Burnett's observation Judging from statistics collected by his assistant at the Dispensary, a larger number of females than males are affected by this disease This is especially true of nervous women about the climacteric period Dr Burnett had examined Dr Richey's patient, and had found the condition just as the doctor stated it It is quite remarkable that such an amount of pressure should continue for such a long time and produce no more effect on vision It is difficult to form a correct idea of the amount of pressure in a glaucomatous eye He related an illustrative case His patient was a man suffering from glaucoma The vision was lost An iridectomy was successfully performed In six months there was a second attack in the same eye, with subacute symptoms Constitutional remedies were given and the disease held somewhat in abeyance It was finally decided that the only thing which could give relief was enucleation The patient at first refused to submit to such an operation But the cicatrix began to open and gradually the crystalline lens was pushed forward and came out of the opening the morning of the day Dr Burnett enucleated the eye He wished to call attention also to the insidiousness of this disease, and to the liability of its being mistaken for some other trouble It is important to make a correct diagnosis early, for the difference of a few hours may mean loss of vision He related a case in point in which the patient, a colored woman, had been under the care of a physician for six weeks without a proper diagnosis having been made Dr Burnett was compelled to perform sclerotomy The pain was relieved but vision was not restored In this case he vainly tried to cocainize the eye, and was forced to resort to general anæsthesia He had observed the same thing in other glaucomatous eyes Tension would seem to prevent the cocaine having its usual effect

Dr Richey said that Dr Burnett had rather left the strict consideration of the paper He had not intended to give a comprehensive treatise on the disease in his paper, but rather to bring out a few salient points as evidenced in his case and treatment

The case will probably ultimately result in blindness Hardly any other result is to be expected The subject of increased tension has occupied specialists for a long time, and it is now considered pathognomonic of glaucoma The chronic form is the most insidious

Dr Burnett did not remember having ever before seen this disease in a patient eighteen years of age He would give a more hopeful prognosis in the present case than that given by Dr Richey

Dr Richey said he had endeavored to correct the fermentative dyspepsia from which the patient suffered Apart from that she was in fairly good health He had also given her iodide of potassium, and had used dry cups Judging from what he had seen of chronic simple glaucoma, he would not be inclined to give a favorable prognosis Whether the good result already obtained was due to eserine or not, he did not know He thought, however, that eserine, and not atropia, was the proper remedy, though some have reported good results from the use of the latter drug He had no confidence in pilocarpine In reply to a question by Dr W W Johnston as to the pathological histology of the disease, Dr Richey said we glean much of our knowledge from post mortem examinations Acute glaucoma is caused by something which interferes with the escape of fluid, though the secretion continues There being no escape, the retina is obtunded and the circulation interfered with Sometimes inflammatory changes occur, but not in chronic simple glaucoma

---

Stated Meeting, January 4, 1886

The President, W W Johnston, M D,
in the Chair

The following officers were elected for the ensuing year

President—Dr C H A Kleinschmidt

Vice-Presidents—Drs W H Taylor and J B Hamilton

Corresponding Secretary—Dr T C Smith

Recording Secretary—Dr T E McArdle

Librarian—Dr J H Mundell

Treasurer—Dr C W Franzoni

Board of Examiners—Drs McArdle, Fry, Acker, L Tyler, and E C Morgan

Board of Censors—Drs Cook, Holden, and Hyatt

Publication Committee—Drs McArdle, Harrison, Fry, and Adams

Committee on Microscopy—Drs Lamb, Aiken, and Harrison

PATHOLOGICAL SOCIETY OF PHILADELPHIA

Stated Meeting, January 14, 1886

The President, J C Wilson, M D, in the Chair

W E Hughes, M D, Recorder

Dr T S K Morton presented a

CANCER OF THE LOWER THIRD OF THE ŒSOPHAGUS, WITH METASTASES TO THE STOMACH AND LIVER,

from a woman æt 61 years, of good family history Her illness commenced, by her account, eleven weeks before her death, with jaundice, vomiting, constipation, and lancinating pains in the right hypochondrium The vomiting became uncontrollable, the matters several times containing coffee-ground material After death there was found a scirrhus cancer of the lower third of the œsophagus extending to the stomach, with no narrowing of the œsophageal lumen The retro-peritoneal glands were involved, and the head of the pancreas slightly Scattered through the liver and stomach were numerous secondary nodules

Dr Morton then presented a specimen of

CIRRHOSIS OF THE LIVER WITH PERI-HEPATITIS,

removed from the body of a woman, æt 40 years, who had been an excessive consumer of strong spirits Symptoms had been present for five years, the most prominent of which were general œdema with marked ascites and diminution of the area of liver dulness She died of an intercurrent attack of facial erysipelas The liver weighed thirty six ounces and was strongly adherent to neighboring structures At its entrance into the liver the portal vein was much contracted, and below this point dilated

Dr Morton also presented a specimen of

AMYLOID DEGENERATION FOLLOWING CHRONIC DYSENTERY

The patient, a girl, æt 20 years, had no history of syphilis, there was a perfectly good family history She had been in poor health, but with no positive symptoms, for two years Last summer she had whooping cough After that she improved steadily till three weeks before her death, when profuse diarrhœa with high fever set in This was the first attack of looseness of the bowels she had had Jaundice gradually developed The liver was found to be enlarged The urine contained albumen and casts The diarrhœa persisted, the passages containing blood and pus At the autopsy the liver, spleen, and kidneys were found infiltrated with amyloid material, and the large intestine was throughout in a state of chronic dysenteric ulceration

Dr James Tyson said this was the first case he had ever met with in which there was this association of amyloid disease with dysentery as the etiological factor, although this seems the only possible cause in this case, in which the possibility of syphilitic disease seems excluded

Dr William Osler thought it was well recognized that chronic dysentery might be followed by extensive amyloid disease He had met with one or two instances in connection with chronic diarrhœa, which post mortem examination showed dependent on chronic dysentery, with very much the condition of bowel present in Dr Morton's specimen

Dr William Osler presented a

SPINDLE-CELLED SARCOMA OF THE RETRO PERITONEUM WITH EXTENSIVE THROMBOTIC DEGENERATION,

and gave a history of the case A man, æt 60 years, was admitted to the University Hospital in September, 1884, with an abdominal tumor which had been noticed for about six months He had lost flesh and strength, but there was no pain The tumor formed a solid mass, occupying a median position extending above the umbilicus, and could be readily separated by palpation from spleen and liver The case was regarded as one of Lobstein's retro-peritoneal sarcoma For several weeks the patient passed daily over seven pints of clear urine, of low specific gravity, without sugar or albumin The patient was subsequently admitted to St Mary's Hospital under Dr O'Hara, and while there Dr Mears aspirated the tumor, the upper part of which had become soft, and drew off nearly two quarts of bloody serum At the autopsy the tumor was found to occupy a central position, was covered by peritoneum, and was attached to the tissues in front of the symphysis pubis, and seemed to have grown from the subperitoneal connective tissue in this region The upper part of the mass was represented by a soft fluctuating cyst containing blood and shreds of firm thrombi, the greater part formed a solid mass, which on section presented a brownish red color, was firm and dry, and had all the appearance of an old unstratified thrombus In an area of at least 8 × 7 inches this remarkable condition existed At the lower part there were two or three grayish white masses, evidently of a sarcomatous nature The capsule was formed of condensed fibrous tissue, beneath which in many places were recent extravasations The weight was estimated as at least eight pounds The lymphatic glands were not enlarged The kidneys were fibroid The liver presented several secondary masses, one the size of an orange Microscopic examination showed the primary and secondary masses to consist of closely packed spindle cells The reporter drew attention to the rarity with which spindle celled sarcoma forms a large abdominal tumor, and to the unusual site of origin The most interesting feature was the remarkable transformation which the greater part of the mass had undergone This was attributed to repeated hæmorrhages and the gradual conversion of the extravasated blood into a dry, hard thrombus Such a thrombotic change in a tumor was most unusual, and he had not been able to find reference to a similar instance A third point referred to was the polyuria, which was doubtless due to irritation by pressure on the renal nerves Reference was made to the facility with which the growth might have been removed

DR J EWING MEARS thought the growth could have been removed, though the removal would have been attended with some hæmorrhage

DR TYSON asked Dr Osler what, in his opinion, was the effect of thrombotic degeneration on the histological elements of tumors, and whether it was possible for clots to be converted into the tissue of the original tumor, as is asserted by some?

THE PRESIDENT remarked that the case was of much interest from a clinical standpoint, in view of the possibility of surgical interference, and asked Dr Osler whether the conditions as found *post mortem* suggested any means by which such a tumor as this could be diagnosticated from a similar growth occupying the more usual position in the lumbar region

DR TYSON, in connection with the clinical history, called attention to the retro peritoneal sarcoma presented by him to the Society last winter, which had been mistaken by him and others for a tumor of the kidney

DR OSLER, in reply to Dr Tyson's first question, stated that the only remnants of sarcomatous tissue were two or three small but very distinct portions in the lower attached part of the tumor, the remainder had wholly undergone this thrombotic change, and in the upper part had become converted into a blood cyst This change was no doubt slow, with first a destruction of the sarcomatous elements by the blood clot, and then a slow process of necrosis There was no evidence in any part of the tumor of an invasion of the coagulum by the sarcomatous elements, as is not infrequent in thrombi in other regions, as he had seen in the portal and renal veins The chief interest in the specimen lies in the remarkable extent of the thombotic change Looking at the clinical aspect, he had diagnosticated the case as one of retro peritoneal sarcoma from its large size, its being so centrally placed, its slight movability, its distinct separation from liver, kidney, and spleen not being placed more on one side than on the other, and from the fact that palpation in the lumbar region gave no pain or other evidence of kidney lesion It was firmer above the brim of the pelvis than any other tumor he had ever examined One remarkable feature about these tumors is their painless character This man complained of no pain, and in two other similar growths, which he described at length, pain was not a symptom

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

The Value of Iridectomy in the Treatment of Detached Retina — Sparteine — Listerism — Dry Antiseptic Dressings

Dr Fano has recently published a paper on the *Value of the Iridectomy in the Treatment of Detachment of the Retina* Iridectomy, the author states, acts in two ways in the treatment of this lesion as an antiphlogistic, as an expedient purely optical He explains that detachment of the retina is not an idiopathic affection, the production of a serous effusion between the choroid and the retina is the consequence of some circulatory trouble in the vessels of the choroid The detachment is only the effect of the serous effusion, and this latter is the result as in all cases of œdema and serous effusions, of an obstruction in the venous circulation In removing a portion of the iris as in iridectomy, a great number of the vessels of the iris are divided, and a depletion of this membrane is thus obtained

The vascular system of the iris having a great number of anastomoses with the vascular system of the choroid, a mediate depletion of the vessels of the latter is also produced The chances of reestablishing the circulation of the choroid to its normal condition is thus afforded, the re absorption of the effused liquid behind the retina, and a radical cure of the detachment of the retina being the consequence In some cases the detachment of the retina is limited to only a portion of this membrane The portion undetached continues to receive the impression of luminous rays, the detached portion acting like a screen, prevents the luminous rays reaching that part of the retina which has preserved its sensitiveness To improve the vision the luminous rays which enter the eye must not be allowed to be absorbed by this screen, but should arrive at the portion of the retina which remains *in situ* In enlarging the pupil by iridectomy a greater number of luminous rays reach the fundus of the eye, increasing the intensity of the image In affording the new pupil a position directly the reverse of that occupied by detachment of the retina, the luminous rays which traverse the new pupil are not arrested by the screen represented by the detached portion Hence, if the detachment is in the upper part of the retina, the artificial pupil should be practised below, should it be in the lower part, the pupil will be above Dr Fano cited several cases of his clinic to show that medicinal treatment is of little or no avail in this affection, and although iridectomy does not effect a thorough cure, yet, the vision is considerably improved and it may prevent the malady progressing

Sparteine is the name of another new substance just introduced by Professor Sée into the armamentarium of therapeutics At a recent meeting of the Academy of Sciences the learned Professor described sparteine as an alkaloid obtained from the *Sparticum scoparium*, which was discovered in 1850, by Stenhouse, so that strictly speaking it cannot be termed a new substance, but a new remedy M See experimented with the alkaloid in the form of sulphate, and the following effects were the result The first was an improvement in the action of the heart and pulse In this respect it is equal to digitalis or to convallamarine, but its effects are more decided, prompt, and durable than either The second effect is the regulation of the rhythm of an irregularly acting heart, in this respect no other drug is said to be compared to it The third effect observed is that of increasing the rate of the cardiac contractions, thereby rendering a slow pulse more frequent, thus acting like belladonna

All these phenomena appear within a few hours after the administration of the drug, and last for three or four days after its suppression During this time the general strength is increased, the breathing becomes easier, but the urinary function alone does not appear to be influenced by the alkaloid in moderate doses The indications for its administration are sufficiently clear, that is, the sulphate of sparteine may be usefully employed in all cases of weakness of the myocardium, whether it be the result of an alteration of its tissue, or whether it has become insufficient to overcome the obstacles to the circulation When the pulse is irregular, intermittent, arythmical, the sulphate of sparteine rapidly restores it to its normal type When the circulation is slackened, the alkaloid appears to immediately overcome this functional trouble, maintaining or increasing, at the same time, the strength acquired by the muscle Although the sulphate of sparteine may be considered a new remedy, yet the plant from which the alkaloid has been extracted had for a long time been employed in medicine The young sprouts, the flowers and seeds are diuretic and purgative The plant was considered very efficacious in the treatment of dropsies, gravel, albuminuria, and affections of the heart

Listerism, or the so called antiseptic method of dressing wounds, is now scarcely ever employed in surgery, but there is no doubt that in other forms than the spray the antiseptic method has such advantages that a surgeon would be considered culpable of neglect if he excluded it from his practice Its employment in the hospitals in the times of peace is attended with little or no difficulty, but on the field of battle it is a very different matter To overcome the difficulty Dr Bedoin, principal medical officer at Vincennes, proposes that all wet or moist dressings should be rejected, as well as pulverulent dressings, as being impossible to be properly applied, and recommends the employment of tissues previously impregnated with some antiseptic substance, such for instance as ungummed filtering paper, gauze, lint, or jute, as being the most inexpensive These tissues are steeped in a solution of carbolic acid, boric acid, or of corrosive sublimate, then dried The dressing consists in the direct application of these leaves on the wound, the whole being covered with layers of gutta percha and fastened with a bandage The tissues thus prepared are inexpensive, very light, and not bulky By this means the asepticity of the wound is ensured, and it permits of the employment of the more classical antiseptic dressing when once the soldier has reached his permanent ambulance Some of these leaves may be arranged under his cuffs, and the sick-bearers may be supplied with a few packets of them which they may apply themselves A L

DOMESTIC CORRESPONDENCE

THE ETIOLOGY OF ACUTE CORYZA

Dear Sir —The fact that rhinitis, pharyngitis, laryngitis and bronchitis or so called catarrh are caused by micro organisms and not by cold, was forcibly impressed on my mind about two weeks ago For the last month there has been a great deal of wet weather in Pittsburgh, and this, together with the fact that many of the streets of the city have been dug up for the purpose of laying gas and water pipes, setting free these micro organisms, which, as I believe, have been the cause of a sort of endemic of catarrh which has been prevailing here for the last month These micro organisms seem to have found their favorite lodgment in the mucous membrane of the nose, pharynx, larynx or lungs, thereby causing the numerous cases of catarrh which have been prevailing in our vicinity recently

The fact that quinine taken internally in 5-grain doses has been the most effectual treatment in these cases of catarrh, has further induced me to the belief that parasitic organisms are the cause of the so called catarrh How quinine operates as a parasiticide, whether locally, or more remotely by the circulation, I am unable to say, but I am pretty confident that it acts effectually It has been my custom to prescribe 5 grains of sulphate of quinine three times a day for two days, and the cold then would be pretty thoroughly broken up

These facts I offer as bearing out the suggestions as to the etiology of acute coryza given by Dr Austin Flint, Sr, in an article in THE JOURNAL, of November 14, 1885 JOHN M BATTEN

73 Sixth Ave, Pittsburgh, Pa, November 16, 1885

BOOK REVIEWS

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE HOSPITAL SERVICE OF THE UNITED STATES, for the Fiscal Year 1885 8vo, pp 179 Washington Government Printing Office 1885

There is much interesting material in this small pamphlet The first twenty four pages contain the official report of the Secretary of the Treasury, the most interesting part of which is a description, by the architect, of the new Marine Hospital at Baltimore, which is to consist of eight buildings Six of of these will form the Hospital portion proper, three being houses for executive business, for the Assistant Surgeon, and for the boiler, engine, dining-room, kitchen, etc, and three being ward buildings All of the principal floors are on one level, and are connected by wide and spacious verandas, which extend entirely around the ward buildings The wards proper are 30 feet wide, 109 feet long, and 16 feet high at the sides, and each will accommodate twenty patients Each ward has two diagonal wings, which can be isolated from direct communication, one containing water closet, bath and lavatories, the other a smoking room The buildings are to be heated by steam or hot water from the boiler room The ground-plan of the hospital is nicely shown on a large folding sheet When completed this will be the seventeenth hospital in the Marine Hospital Service

Passing over an extensive statistical statement to the report of surgical operations during the past year, we find that the femoral artery has once been successfully ligated for popliteal aneurism In a case of gun-shot wound of the popliteal vein both ends of the vein were tied In a case of neuralgia and loss of function of the ulner nerve, 1¼ inch was dissected, the operation resulting successfully Five operations on the knee-joint are reported, one for suppuration of the patella bursa, one for synovitis, two for suppuration of the joint, in which the bone was scraped, and one for loose cartilage Three operations on the skull are reported, one for fracture, in which the skull was trephined, with a fatal result, and two successful cases of removal of necrosed bone Four operations of excision of joints were divided between one excision of the elbow for necrosis, with good results, one of the hip for morbus coxæ, fatal, one for ankylosis and caries of the knee, with good result, and two successful resections of the ankle for caries and necrosis Two successful operations for stricture of the rectum, one by incision and one by divulsion, are recorded We can see no good reason why the names of the operators are not given, as well as a few other particulars concerning the more severe operations As it now stands, the tabulated statement is absolutely valueless for reference

Following the list just mentioned are some "selected cases from hospital practice" The first paper under this head is on *Cases of Peculiar Forms of Fever* by Passed Assistant Surgeon John Guitéras, and is a most interesting account of some of the peculiar forms of fever observed in the Southern portion of the United States The second paper is a report of a case of resection of the ulner nerve for neuralgia and loss of function, which has already been mentioned The nerve was brought together by two fine catgut sutures The wound healed by first intention The pain disappeared entirely from the time of the operation, and three weeks afterwards sensation began to return in the little and ring fingers, a month later in the muscles supplied by the nerve, "and six months after the operation the hand had so far recovered that the man was enabled to whittle out a miniature merchant man with the injured (right) hand" The operation was performed in the Marine Hospital Dispensary, Portland, Oregon, by Assistant Surgeon Arthur D Bevan Passed Assistant Surgeon A T Armstrong reports an interesting case of *Syphilitic Disease of the Pons Varolii* In the substance of the pons was a spherical cavity about one centimetre in diameter Cerebral symptoms first appeared two years after he came under treatment for secondary syphilis "He complained of having suddenly been troubled with pains in his head and dizziness when he was in a high place His pupils were equal in size and no incoordinate movements in walking" Two months afterwards he still complained of dizziness, and of cephalalgia (Feb 28) On April 11th he was admitted to the hospital with paralysis of the right arm and leg, which commenced gradually on the day before On April 13th there was complete right hemiplegia, with difficult speech on account of involvement of the tongue On the 17th he had a fit, somewhat cataleptic in character, "the most marked feature being perfectly rigid muscles" This state lasted about half an hour He died comatose on April 21st The cavity in the pons, already mentioned, involved the median line, but was mainly to the left of it, and was 3 centimetres below the anterior surface "There is one etiological factor for consideration Syphilitic degeneration of the anterior coats was not noticed in this case In December, 1883, necrosis of the left alveolar process of the superior maxilla commenced Probably this caused disease of the left superior maxillary nerve This degeneration extended backwards, and in December, 1884, when the first cerebral symptoms were noted, had effected the point of origin of these special fibres of the fifth nerve in the pons varolii. Here a sympathetic and gradual degeneration of the substance of the pons was initiated, involving adjacent nerve tissue, and interrupting the decussated motor fibres to the cord, with consequent paralysis of the right side. More than this, fibres to the ganglia of the medulla oblongata were degenerated, causing those expressions of medullary epileptiform spasm, and eventual death from interference with the respiratory centres." This explanation is offered as a working hypothesis in the etiology of some forms of syphilitic cerebral disease. Dr. Armstrong also records a case of malignant œdema. The remaining pages are taken up with reports of fatal cases, with autopsies. Among these, under the report of a case of phthisis, is a description of a supernumerary kidney. It was found in the hilum of the left kidney, attached to its ureter by a small duct (ureter). On examination no evidence was found to show that it had performed the functions of a kidney. Probably the most interesting of these reports is that of a case of uræmia, complicated by meningitis from reflex irritation due to renal calculus.

A Guide to the Practical Examination of Urine. For the Use of Physicians and Students. By James Tyson, M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, etc. Fifth Edition. Revised and Corrected. With Colored Plates and Wood Engravings. 8vo, pp. 249. Philadelphia: P. Blakiston, Son & Co. 1885. Chicago: W. T. Keener.

The fourth edition of this now standard work on the examination of urine was in the press when the first announcements were made of the new and delicate tests for albumin, and those interested in the subject have looked forward with no little interest to the appearance of this edition. These tests are fully considered in the present edition, and, with perhaps one or two exceptions, have been assigned to what seems to be their proper places. These exceptions are in regard to the picric acid and potassio mercuric iodide tests, and the test papers for the detection of albumin. In the case of the potassio mercuric iodide test we cannot agree with the author that the urine requires no previous acidulation. "In my own experiments," says the author, "I have several times failed with the mercuric iodide when I succeeded both with picric acid and sodium tungstate." It is entirely probable that his want of success in such cases was due to the fact that he did not add citric acid, as advised by Oliver and practised by Ralfe.

It seems scarcely necessary to give any detailed description of Dr. Tyson's book, as almost everyone seems to have seen or used one of the earlier editions. For its size it contains more information as to the proper methods of testing urine than any book in existence. It is clearly written, the directions being concise and in such language that the veriest tyro should understand them. The chapter on urinary deposits is much more full than is found in many larger volumes. It contains a colored plate showing pigmented markings on glass slides, which will be regarded with interest by many a man who has been puzzled by such an appearance under the microscope.

To one who has paid little or no attention to the examination of urine during the past five years, by the new methods that have been introduced in that time—and of such there are too many—Dr. Tyson's book will be a revelation and a great boon. With it and its proper companion volume, Ralfe's "Kidney Diseases," and a third, now in manuscript form and soon to be announced in these columns, a physician will be thoroughly equipped for the investigation of abnormal conditions of the urine and kidneys, and for their proper medical treatment—at least as far as the present state of our knowledge has thrown light on the subject.

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION.

Membership.—Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member. He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate. As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not. Payment of annual dues entitles him to receive the weekly Journal of the Association for one year.

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society. They pay five dollars annually thereafter, when notified by the Treasurer. Members by application can join the Association at any time, and they receive regularly the weekly Journal.

When Dues are Payable.—The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter. The payment entitles the member to receive the Journal for one year from the following July. Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June, 1886, inclusive.

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day. Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association.

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all* *payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia.*

Deaths.—When a member of the Association, who is in regular receipt of the Journal, dies, his family or other representatives are requested to inform the Treasurer at once of the fact.

Payment of Dues for Previous Years.—As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association.

Transactions of the Association.—These annual volumes, thirty three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices. The Index to these volumes will be forwarded on receipt of *One Dollar*. An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce.

Richard J. Dunglison, M.D., *Treasurer*,
Lock Box 1274, Philadelphia, Pa.

MISCELLANEOUS

Ohio State Sanitary Association.—The third annual meeting of this Association will be held in Columbus on February 24 and 25, 1886. There are good prospects for an unusually interesting meeting.

Cremation in Paris.—The Municipality of Paris has recently decided to erect a crematory at Père Lachaise Cemetery, and the plans have already been accepted. The expense of cremation must not exceed fifteen francs ($3.00), and the time required for combustion two hours. The erection of a suitable building for the urns or other funeral vases containing the ashes of dead relatives is contemplated.

Sir J. Crichton Browne.—Those who have read Dr. Browne's valuable contributions to psychological literature, will be interested in knowing that the honor of Knighthood has been recently conferred upon him.

Prizes of the Spanish Medico Chirurgical Academy.—The Spanish Medico Chirurgical Academy has published the following programme of themes for prizes to be given at next year's competition. The essays may be written in English, and must be sent in by the middle of September next, accompanied by a sealed packet containing the author's name and address, a motto being endorsed on the envelope similar to that inscribed on the essay. 1. Prize given by the Academy, £10. What modifications has the panspermist theory produced in the treatment of internal diseases which are known, or suspected, to be of a parasitic nature? 2. Prize given by Senor Morales, £30. Critical examination of the progress made in operations on bones.

Finger-Marks and Murder.—Our Paris correspondent forwards particulars of a remarkable trial for murder held recently at Rodez, in the south of France, where a self accuser was proved to be innocent, and the true criminal detected by medical evidence. Last August, a woman, named Melanie Vieu, went to register the death of a child, which she had wrapped up in her apron. The registrar examined the child, as is customary, and observed finger-marks on its throat. The mother then declared that she had strangled her infant. She was sent to prison, but Dr. Desmont, who had been directed to examine the body of the child, stated that it had certainly been strangled, but not by its mother. Her hand was more delicately formed than that of the murderer, which had left its impression on the child's neck. The fingers of the guilty party must have been short and thick, the index finger being unusually short, and apparently devoid of a nail, defects which the witness indicated as valuable clues for the discovery of the murderer. Melanie Vieu finally admitted that the murderer was a man called Bonuet and that she was his servant. The accused was arrested, and his index finger was found to be one centimetre shorter than the average length of that member, and its nail had been destroyed by accident or disease. Bonuet was sentenced to six years' imprisonment.—*British Medical Journal*, Jan. 9, 1886.

Merritt Hurst, M.D., late of Sweetwater, Menard Co., Illinois, died suddenly of disease of heart (supposed) on October 4, 1885. Dr. Hurst was born in Washington County, Ky., on July 14, 1840, and removed with his family to Illinois in September, 1849. He served as a private soldier and as first Lieutenant in the Civil War, and at its close began the study of medicine with Dr. A. L. Currier, of Sweetwater, Illinois. He graduated from Rush Medical College, Chicago, in 1868, and at once began the practice of medicine in Sweetwater. His life from that time was devoted to his profession. He was brotherly in his professional work, and left a community besides his relatives to mourn his loss. He was a member of the local medical society, and of the Illinois State Medical Society. He became a member of the American Medical Association at its last meeting.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 9, 1886, TO JANUARY 15, 1886.

Col. Thomas A. McParlin, Surgeon, now waiting orders in New York City, ordered for assignment to duty as Medical Director Dept. of the Platte on Jan. 24, 1886. (S. O. 5, A. G. O., Jan. 7, 1886.)

Lt. Col. Ebenezer Swift, U. S. Army (retired), died near Hamilton, Bermuda, Dec. 24, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED JANUARY 16, 1886.

Sawtelle, H. W., Surgeon, to proceed to Los Angeles and Wilmington, Cal., as inspector. Jan. 1886.

Godfrey, John, Surgeon, to proceed to Chattanooga, Tenn., and Rome, Ga., as inspector. Jan. 8, 1886.

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, JANUARY 30, 1886 No 5

ORIGINAL LECTURES

LUPUS ERYTHEMATOSUS

A Clinical Lecture Delivered at the College of Physicians and Surgeons of Chicago

BY HENRY J REYNOLDS, M D ,
PROFESSOR OF DISEASES OF THE SKIN IN THE COLLEGE

I will to day, gentlemen, invite your attention to the study of a comparatively rare form of disease, the case before us being the first of the kind presented at our clinic now for about a year, during which time we have had, perhaps, almost a thousand different cases of skin disease presented for treatment Though, to a certain extent, similar in character, and bearing a somewhat similar name to lupus vulgaris, upon a case of which, you will recollect, we made the scraping operation a few days ago, it should, I think, be regarded as an entirely separate and distinct affection, and is at the present day usually so considered In this disease and lupus vulgaris we never find the one merging into the other, nor do we find intermediate forms between the two diseases, as in the various forms (so called) of eczema and acne, for example, they always remain distinct from first to last The name of this disease to which I refer and of which I have a case for your inspection, which illustrates the disease in a most typical manner, is *lupus erythematosus*

Before directing your attention to this individual case, however, let us first get a general idea of what the symptoms and characteristics of lupus erythematosus are According to the classification we have adopted the disease belongs to the class known as "new growths," and, as the name implies, it presents an erythematous or reddish appearance It is found chiefly upon the face, generally makes its appearance from adult to middle life, and is more frequent in females than in males There is not necessarily, so far as we are capable of discerning, any appreciable constitutional disturbance It is an extremely chronic affection, lasting sometimes for years, or even throughout life, in spite of treatment The sites of preference are the cheeks or nose, the eyelids, forehead, ears, scalp, and more rarely the hands and feet Occurring upon the face it tends to involve both sides symmetrically The disease generally first makes its appearance as a small pea sized slightly elevated, brownish red macule upon the cheek or nose In due process of time, as the original patch progresses, new spots are apt to appear, first, perhaps, upon the opposite cheek, then the nose, forehead, scalp, etc We rarely find less than two patches, and sometimes they are numerous, and when the case is first seen by the physician they may represent all stages of progress of the disease These patches remain constantly about the same, except that they gradually spread by peripheral extension, the border of which is well defined and slightly raised As the patch spreads peripherally the central part shows less activity, and becomes atrophied and depressed, giving, as in ringworm, the appearance as if clearing in the centre If untreated, each patch is seen to be covered with yellowish white, firmly adherent scales, upon removal of which, they will be found sometimes to project down into the sebaceous ducts There is no moisture or discharge in the disease from first to last, and the subjective sensation is that of occasional or constant slight itching, for the relief of which the part is more rubbed than scratched If the disease progress favorably it is followed by a smooth, uniform scar

The history of this case is as follows W M , æt 17, born in this country, father Italian, mother Irish, and both healthy Patient is at present otherwise healthy The eruption first made its appearance a year ago, as a slightly elevated, brownish red macule about three-quarters of an inch below the right eye; soon another similar patch appeared at an almost corresponding point on the opposite side, and later other patches appeared about each cheek, on left ear, etc , till we now find about half a dozen of such patches The size of the patches representing their order of evolution, you will notice now, as he passes around among you, that the one below the right eye, which has now reached an inch in diameter, was the first to appear, the one on the left side the next, and so on, the smallest patches representing the disease as it first appears You will notice that perhaps the most striking characteristic is the redness or erythematous condition, from which the disease has received its name, that it is confined to the face, the favorite site for the disease, that the subject is neither in childhood nor old age when attacked, that it is extremely chronic, slow, and free from exacerbations in its progress, and that we have an occasional cropping out of a new patch with a similar behavior We also find in this case the characteristic tendency to symmetrical distribution You will also observe that each of these patches is accurately defined, with a slightly raised, active border, and a tendency to clear in the centre, that they spread by peripheral extension, and are circular or oval in outline You will see, also, that each patch is covered by the characteristic yellowish, firmly adherent scales, and, lastly, that the disease is entirely free from moisture or discharge, and that there is evidence of a tendency to atrophy, depression and scarring in the centre, the case thus, as you see, presenting all the characteristics of the disease

Diagnosis —Now, without going further, the characteristics referred to in this case alone, collectively considered, are sufficient to base a diagnosis upon, the same *combination* of symptoms occurring in no other disease As many other skin diseases display some of these same symptoms, however, let us see what they are and exclude them Among them may be mentioned lupus vulgaris ringworm, eczema, psoriasis, and superficial epithelioma

Lupus vulgaris may be excluded by its first appearing, usually, in childhood It is more nodular and lacks symmetry of distribution, is more destructive, involves deeper tissues, ulcerates, etc

In *ringworm* of the face there is no tendency to symmetrical distribution, it is not so chronic, it lacks the characteristic yellowish, firmly adherent scales, they being loose and furfuraceous, the border is not so active and raised, it pales more on pressure, and we further have a history of contagion, discovery of the parasite with the microscope and no scar as a relic of the disease

In *eczema* we have a history of moisture, greater itching, it is more acute, the margins are not well defined, it is not limited so constantly and continuously to one location, there is not necessarily a raised margin and a clearing in the centre, the scales are not so adherent, and there is no scarring as a relic of the disease

In *psoriasis* the almost pathognomonic, white, silvery scales, which leave, upon removal, the characteristic red, bleeding patch, together with its usually general distribution, would alone exclude that disease

Superficial epithelioma is a disease of old age In this disease we have excoriation, moisture, brown crusting, ulceration, greater destruction and lack of symmetry

It will be seen, therefore, that each of these diseases is possessed of numerous characteristics that we do not find in the case under consideration, and we therefore thus exclude them

As to the etiology of the disease nothing is definitely known, some regarding it as of scrofulous origin, others as sebaceous, and others as having no connection with either

Treatment —Various remedies have been recommended for internal administration, such as iodine, iodoform, arsenic etc, as having a special influence over the disease There being no special constitutional disturbance, however, in this disease, or if any, its exact nature not being definitely understood, the treatment, to be intelligently applied, must be mainly local There being, however, such an intimate relation existing between the various organs and structures of the body, the one being therefore so dependent upon the other, any constitutional impairment naturally tends to prolong, if not to aggravate, most local diseased conditions, no matter how remote, and should therefore be sought out and rectified by proper constitutional measures

As to local treatment, inasmuch as we find a perverted nutrition in the diseased part, giving rise to new growth, a deposit of inflammatory exudate, etc, the rational inference would be, that such topical applications as tend to increase the physiological afflux of blood to the part, and thereby increase or change in character the nutrition of the involved structures, promote absorption of deposited material, etc, would be indicated, and to this end are used certain stimulants, irritants, etc, among which may be mentioned the daily application of hot water, rubbing in of green soap, application of iodine, chrysarobin, pyrogallic acid, sulphur, mercury, cantharides, etc, in various forms and combinations, as results seem to indicate In this case we will order, for the present, the parts bathed every night with hot water, then wiped dry and green soap rubbed in to remain for the night In the morning the parts will be again bathed and cleansed with hot water, and fine impalpable boracic acid be applied for the day, morning and noon say, the same process to be repeated every day If this set up too much irritation, the treatment must be changed from time to time and milder and more soothing measures be applied, as for instance, a drachm of sulphur to an ounce of lard or rose water ointment at night instead of the green soap

ORIGINAL ARTICLES

MUTUAL PROTECTION AGAINST BLACKMAIL[1]

BY E J DOERING, M D,

OF CHICAGO

Among the many trials which physicians have to encounter in the practice of their profession, is the ever existing liability of being blackmailed This may either assume the more frequent form of a so called malpractice suit, or the relatively less frequent charge of a criminal assault, according to the viciousness of the complainant It is undoubtedly a fact that such suits against physicians are on the increase The New York *Medical Record* has reported a large number in the course of the past year, and a glance over the Court-record in this city will prove the correctness of my assertion, as far as Chicago is concerned Every city is overrun with petty lawyers, who have little or nothing to do, and are always willing to undertake any suit whatever if there is the least prospect of getting something out of the defendant From what I have learned since investigating this matter, I am convinced that many of these blackmail schemes are settled before being made public Many a physician has preferred the payment of one or two hundred dollars rather than incur the publicity, the loss of time, and the endless expense of a lawsuit Again, the average jury, composed as a rule of the vulgar and illiterate, will always have a strong leaning towards the complainant and against the defendant, as physicians are popularly supposed to be capitalists Who, then, can blame a brother practitioner if, with all these facts staring in his face, he prefers being robbed by paying the blackmailer a stipulated sum rather than go to law?

---

[1] Read before the Chicago Medical Society January 18 1886

In justice to myself, I desire to state that personally I have never been sued, or threatened with a suit, and as I do not practice surgery in any of its branches, I consider myself comparatively safe It is therefore not from any motive of selfish interest, but from a sincere regard for the welfare of my professional brethren, that I desire to submit to your consideration the advisability of forming an association for the mutual protection of physicians against blackmailing suits of all kinds, arising from their relations as members of the profession My plan is to form an association composed of about two or three hundred members of the regular profession, all of whom shall be of acknowledged ability, possessing a good moral character, and standing well in the community Said association to employ one of the prominent law firms by the year, to furnish the members such legal advice as they may desire, and defend any suit arising against the members in the discharge of their professional duties From correspondence with lawyers, I find that an annual due of five dollars for a membership of two hundred would suffice to cover the expense An initiation fee of five dollars would create a sufficient fund for court expenses It is not necessary to enter into further details which can be easily arranged if it be desired to form such an association It is my firm belief that such an association would be a power in *preventing* suits being brought against its members Let it be known that the individual physician is backed by the financial and moral support of a few hundred of the best physicians, and aided by the best legal talent obtainable and he will be let severely alone by the dregs of society who constitute, almost without exception, the blackmailing element in our professional life

There is only one possible objection, it seems to me, which can be raised against such an association and that is, whether the fact of being a member of such a body would not prejudice the jury against the physician As this is a legal point, I have consulted several lawyers about the matter, and with but one exception they agreed that no such objection could be raised, provided the scope of the association would be as outlined in one of the legal opinions which I shall read later I do not know of the existence of such an association as the one proposed, in any other city, but I find the principle of mutual protection has been carried out recently by the New York County Medical Society From a report of an adjourned annual meeting of that Society, held November 23d, 1885, I quote as follows "The comitia minora recommend that the Society request Drs A E M and A S Purdy, defendants in the case of Brown versus Purdy, to appeal, the jury having brought in a verdict of $500, and also that the sum of $500, if necessary, be appropriated to aid in the proceeding" The Drs Purdy reported what they believed a case of varioloid The Health Board sent an inspector, who saw the patient, and the Board ordered a removal to the Small pox Hospital The plaintiff remained there a short time and was discharged, and subsequently brought suit for damages against the defendants with the plea that she did *not* have varioloid On motion of Dr Agnew, the recommendation was adopted

I desire now to submit to you some correspondence with reference to the proposed association Dr Wm H Byford writes as follows

Dear Doctor —Your project of forming a physicians' mutual protective association, I hope will be successful One of the greatest incentives to blackmail medical men is a fact well known, *i e*, medical men are not united There are some among us who think it very much to their interest to destroy a rival, by encouraging malpractice suits A powerful association of the kind you propose would prevent these or other viciously disposed persons from doing the harm they now sometimes do

(Signed) W H BYFORD

Our President, Dr Parkes, writes as follows

Dear Doctor —Your letter of to day was duly received and the contents carefully read I think, Doctor, the association you contemplate forming is greatly needed I am heartily in accord with you and will contribute whatever is within my power for its advancement

(Signed) CHAS T PARKES

Dr D R Brower writes as follows

Dear Doctor —Yours of this date to hand I earnestly endorse your mutual protective association It will be, as you predict, a means of drawing closer together the members of our profession, and of protection against the vilest of all members of society, the blackmailers

(Signed) D R BROWER

The following extracts are from a letter of Dr B Bettmann As will be remembered, the doctor was sued by a charity patient, who did not even have the shadow of a case against him "A heart rending reference by claimant's counsel to her old age, infirmities and poverty, had the desired effect The jury, after five hours' deliberation, brought in a verdict for plaintiff, fixing the damages at $4480 This unjust verdict was set aside by the Judge, and a new trial was granted, which took place several months later, and the case dismissed The plaintiff took a non suit and recommenced hostilities in the shape of a new suit for $25,000, which, by order of the Judge, was stricken off the calendar The expenses incurred by these trials amounted to $250 The annoyance and mental strain I underwent are beyond the comprehension of those who have not been placed in a similar unfortunate position I heartily recommend the formation of a physicians' protective union, which should be represented by an able lawyer, chosen by a committee I also would suggest the appointment of an Advisory Board, composed of two prominent representatives of each of the special branches of medicine The duties of such a counsel would be to thoroughly investigate every malpractice suit brought against a member of the union, and to assist in every possible manner to secure justice "

(Signed) BOERNE BETTMANN

Dr J H Etheridge states his opinion as follows, after briefly referring to an unsuccessful attempt, several months ago, to blackmail him "I am heartily in favor of organizing a physicians' mutual protective association against malpractice suits The existence of such an organization would deter many a person from beginning suits, when it is once understood that physicians are organized and possessed of funds and an attorney who means business ' The careers of many struggling young physicians would oftentimes be assured, were they only fortified and upheld by such an association I heartily endorse your efforts in this direction, and shall be pleased to cooperate with you in any capacity "

(Signed) J H ETHERIDGE

Dr S C DeVeny informs me that a recent most outrageous blackmailing scheme has cost him to date $800, which is small, however, compared to the loss of time and the mental distress he has been subjected to The doctor also is in favor of a protective association

The following letter is from Dr Plymmon S Hayes

Dear Doctor —In regard to my malpractice suits—for the case was tried twice—I paid my lawyers and short-hand reporters in round numbers eleven hundred dollars Each trial consumed about four days In addition to this I spent nearly one week in coaching my lawyers on the medical aspects of the case The trial came at a time when I could ill afford the expense I think it will be best to form an association of physicians and employ an attorney by the year, for the following reasons *First*, the lawyer should have some knowledge of medicine, and after a trial or two his competency could be proven, *second*, the attorney would soon become posted in regard to the medical witnesses, and in any given case would know who of the physicians to call, *third*, I believe that this plan would be cheaper in the end If the defendant in a malpractice suit desires another attorney as an assistant to the one furnished by the association, let him hire the attorney at his own expense If an attorney were employed by the year he could be consulted at any time by the members of the association in case they feared a suit, and thus have legal advice from the beginning

(Signed) PLYMMON S HAYES

Dr E L Holmes writes as follows

Dear Doctor —I would gladly take any measures for protection against malpractice suits that would really protect Would not the fact of belonging to such an organization as you mention, be a disadvantage to a physician brought to trial before a jury? Would the jury not be prejudiced against such a physician as, I believe, it always is against one who attempts to fortify himself by securing a written agreement from the patient that he will be satisfied with the result of an operation or treatment? The jury have always, as far as I know, turned upon the physician with the accusation that he has guarded himself, or attempts to do so, and then neglect his patient as much as he chooses If a considerable number of our friends have confidence in the plan, and it has been in successful operation in other places, I see no reason why I should not be willing to join the organization I should wish to discuss the question in all its aspects

(Signed) E L HOLMES

The following letter is from Dr F C Hotz

Dear Doctor —I have had a little experience in malpractice suits, having been sued two years ago My attendance in court did not extend, all in all, over two hours, but how much time I spent with my attorney in preparing for the case I cannot say The case was dropped by the plaintiff after his witnesses had testified, but it cost me $250, actual cash expenses As to the forming of an association, I have some doubts as to its practicability These suits are not brought against the association, but against the physician himself They are, therefore, a very personal matter, and it might be that the lawyer chosen by the association might not be the one whom the prosecuted doctor would choose to protect his personal interest You know it is with lawyers like physicians, largely a question of confidence, and I, at least, if I should be unfortunate enough to have another malpractice suit, should wish to employ only the attorney of my own choice

(Signed) F C HOTZ

Dr H A Johnson writes as follows

Dear Doctor —I have thought over your proposed mutual protective association I may be mistaken in my estimate of the needs of such an organization, but it seems to me that these needs are small, that it would hardly justify the labor and expense of the machinery I do not hear of suits for malpractice very often, and possibly I am so far out of the way, I mean out of the general practice, that I have overlooked them (Signed) H A JOHNSON

Dr E Andrews states his opinion as follows

Dear Doctor —The object is a worthy one Like everything else, the plan involves some difficulties The fact of a powerful club being known to exist for defence, like an old sword, cuts two ways It tends to prevent suits on the one hand, but if one comes actually to trial, it will prejudice the jury against the defendant, just as corporations do Some of the members may not wish to use the attorney selected by the club, and as a matter of fact, such a body will rarely succeed in selecting the best man I am not clear at this moment how these evils can be best obviated, but the whole matter will require very careful study and adjustment

(Signed) E ANDREWS

Dr D A K Steele, whose advice and assistance have been sought in several more recent suits, writes as follows

Dear Doctor —With proper restrictions and safeguards I am decidedly in favor of a physicians' mutual protective association Physicians and surgeons are peculiarly liable to be threatened and harassed, or actually bled, by blackmailers In union there is strength, and a combined effort to resist an attack upon the reputation or skill of a member by an association of the profession would do much towards lessening the frequency of malpractice suits Most of these cases are taken by lawyers upon a contingent fee, and not infrequently urged upon the patient by the assurance that it will not cost him anything, and that the lawyer will give him half of whatever he recovers, or of the amount for which the unfortunate physician compromises rather than bear the expense and worry of a suit If these shysters know that the physician is a member of a mutual protective association, morally and financially sustained by the general profession and defended by a first class attorney who will fight the case from court to court, the contingent fee will seem so distant that these fellows will think twice before boldly walking into a doctor's office and demanding an immediate settlement or threatening a suit for malpractice I would suggest the appointment of an Advisory Board, which in a quiet way should investigate every case before official action is taken by the society, so that in the very rare event of a member of the association being actually guilty of malpractice, he could be advised to compromise his suit

(Signed) D A K Steele

Dr Chas Warrington Earle sends me the following letter

Dear Doctor —I am in receipt of your letter relative to your paper regarding blackmailing I am heartily in spmpathy with the movement, although it may be necessary for us to steer clear of some legal dangers

It appears to me that the greatest trouble will be in the selection of members There are some men in the profession who by their actions invite suits of malpractice, and there are others who encourage suits by their unwise conversations with the people These are the men whom we must seek to exclude

(Signed) Chas Warrington Earle

Finally, I desire to submit a legal opinion on the principal objection raised by my correspondents, viz what effect a membership in such an Association would have on the jury

Munn and Wheeler, the well known criminal lawyers, give the following opinion

Dear Sir —Referring to the matter of a physicians' protective society, the object of which shall be the mutual protection and defense of its members in any suits which may be brought against them in a professional capacity, we desire to say that in our opinion such an organization would be an excellent one, that the idea is an idea embodying not only good common sense, but also the best business principles and foresight It is a well known fact that by far the greater number of the suits brought against physicians in their professional capacity are without any good foundation, being for the greater part mere blackmailing schemes The defense of such suits by an individual is exceedingly burdensome and expensive The members of such an organization as the one in question might, by the payment of a small amount yearly, each secure efficient legal talent to attend to all such cases We do not believe that the fact of membership in such a society would at all prejudice a jury, nor could it, as a matter of law, be properly brought before a jury (Signed)

Munn & Wheeler,
Counselors at-Law

Mr O H Horton, of the firm of Horton, Hoyne and Saunders, one of the prominent lawyers of this city, gives the following opinion

Dear Sir —I see no reason why you may not legally organize and maintain a society of members of your profession for mutual benefit and protection, as suggested by you The practical question has suggested itself to me of the effect of such an organization in court upon a jury, in case one of its members was being prosecuted Strictly speaking, the fact that the defendant was a member of such a society would not be competent evidence It would, however, doubtless get into the case, if the attorney for the prosecution desired to have it appear In most, if not all, of the class of cases to which you refer, it is necessary for a physician to call other physicians as witnesses In that event such witnesses could be asked if they were not members of such a society and therefore interested in the suit, etc That would bring out all the facts as to there being such an organization But, as I understand the matter from you, it is not the purpose to have the society pay any judgments, if any be recovered against one of its members, but to defray the expenses, that is, pay the costs of making a defense, including attorney fees I would, therefore, suggest that in specifying the objects of the association, you should include not only the protection of its members, but of their patrons and the public as well, that is, that the professional secrets and confidence reposed in the physician by his patrons should be protected from being made public in case it was sought in any manner to compel the physician to reveal such confidential communications, etc In other words, make the organization as much for the protection of the employers of the physicians as the physicians themselves I think that that would remove all practical objection to the organization, so far as the effect in court upon the trial of a case is concerned

(Signed) O H Horton

This finishes the correspondence, which in itself is so complete that I have nothing to add I earnestly request every gentleman present to night to state his opinion, whether or no he is in favor of forming such an association as the one proposed The time at my disposal is very limited, but if I receive enough support to encourage the formation of a protective union, I promise to do all in my power to make it a success I believe such an association to be entirely practicable, that it will be a power for good, that it can do us no harm, that it will draw us closer together as a profession, that it will be a great satisfaction to one assailed by misfortune to have the sympathy and support of his fellow practitioners—that, in short, it will favor the principles of a common brotherhood, viz equality, harmony, justice and unity

A CASE OF PROLONGED GESTATION

BY SAMUEL K JACKSON, M D ,
OF NORFOLK VA

In May, 1884, I was called to Mrs T , æt 30, who was suffering with severe dysmenorrhœa She had not borne a living child for thirteen years, but had had several abortions, certainly two within the past four or five years, since the last of which she had menstruated regularly, but with increasing pain, as she reports, each month, until the period mentioned, when it became so violent as to require medical aid Bridging over this attack with palliatives, I deferred an examination into its cause until after the menstrual flow had ceased, when I found almost an entire occlusion of the cervical canal, not so much from engorgement or hyperæmia, as the result of an inflammatory condition, which probably had existed for some time, and still existed to some extent Devoting attention more particularly to this during the early part of the month, I delayed any attempt at dilatation until the approach of the next menstrual period The dilatation was successfully, though with difficulty, effected by the introduction of a piece of sea tangle just two days before the expected catamenial flow, with the effect of entirely preventing another attack of dysmenorrhœa, and she has not ceased to menstruate since that time with ease and regularity

But notwithstanding this want of interruption in the menses, she presented symptoms which during the following month of September rendered it probable that conception had taken place some two months before, possibly near to the July menstruation During the month of October there was considerable abdominal enlargement, of about the shape of three months gestation On the 22d of October she imagined that she "felt it," but in this she was evidently mistaken, as she discovered afterwards by very distinct sensations of "quickening" occurring when she was on a visit to Baltimore on the 9th of December She had been threatened with abortion in October, and during the following month it was with great difficulty prevented

On her return from Baltimore towards the close of this month (December), a stethoscopic examination failed to discover the beating of the fœtal heart, but this unmistakable sign presented itself on the next examination, during the early part of January, 1885 It was perceived again in the latter part of this month Up to the time of this revelation there was considerable doubt as to the existence of pregnancy, several of the most reliable signs being wanting For instance there was no cessation of the menses, and there was no shortening of the cervix (nor was there up to the finale of the case) But all doubt was removed by recognizing the fœtal heart, and as it was perceptible at this period it was evident that conception had occurred very near to the time it was first suspected

These decided proofs, together with her own sensations and perception of the motions of the fœtus, had the effect of allaying much nervousness and anxiety, which had existed through the long period of doubt, and she immediately set about preparations for the approaching accouchment, which was confidently expected about the 1st of May The probability of its occurring at this time obliged me to relinquish the long cherished purpose of attending the New Orleans meeting of the American Medical Association About the 1st of March her mother, who resided in Baltimore, importuned her to come home to be confined A struggle between the desire to be with her parent and that to remain with her physician was quieted by my promising to go to Baltimore to attend her on the interesting occasion, and she left me early in April, with the expectation of seeing me in a month's time Her letters to me from Baltimore evinced anxiety lest I should not get to her on time As Tuesday, the 28th of April, was the earliest calculated upon, I reached her on the morning of that day I found her very large and clumsy, and in hourly expectation, as she said she had occasional premonitory pains

Spending as much time with her as possible, I could perceive no signs of approaching parturition, but on my visit on Thursday morning (April 30) she told me that she had violent pains during the previous night, and begged me not to leave her again To quiet her anxiety I remained at her mother's house, and after sleeping all night was surprised on awaking that I had not been aroused

As I was spending so much time to no purpose I insisted upon an examination, to determine what the prospect might be of the delivery coming on within a reasonable time To my great surprise I found the same elongated cervix which had obscured the case from the beginning, and no signs by which I might calculate upon a delivery within a considerable time, and therefore I was reluctantly obliged to announce to her my determination to turn her over to another physician and return home Her mother's family physician, Dr Geo R Graham, was selected, to whom I gave a history of the case from the beginning, told him of my doubts and fears, and finally of the conditions which influenced my opinion, and left him in charge of the case I was gratified to learn by a letter from Dr G that his diagnosis agreed with mine, and that he had been able to recognize the fœtal heart, but subsequently, owing to the reluctance of the uterus to relieve itself of the burden, he very reasonably inferred that it must be an extra-uterine pregnancy From the accounts given me of the progress—or rather the want of progress—of the case, I also was inclined to entertain this fear

The patient became so nervous and uneasy about her condition, increased by the importunity of friends, she concluded to consult a physician in Baltimore whose talents and experience have won for him a high position in the profession A partial examination at his office inclined him to doubt the existence of pregnancy and to suspect a tumor, but, as reported to me, he refrained from giving that as his opinion until he could be satisfied by a more thorough examination, which was made by himself and a specialist in that department in the presence of Dr Graham These gentlemen adhered to the opinion previously formed, and diagnosed that the abdominal enlarge ment was due not to a pregnancy, but to a fibro-cystic temor of the right ovary, and advised an operation. From this opinion Dr. Graham dissented, as will be seen by his letter to me of August 25, from which I give the following extracts in order to furnish a history of the case while the patient was under his care.

BALTIMORE, Aug. 25, 1885.

DR. S. K. JACKSON:

My Dear Sir:—In reply to your letter I will state that Dr. ——'s diagnosis was "Fibro-cystic tumor of the right ovary." But I am not at all convinced that he is right, though it may seem presumptious in me, with my limited experience, to pit my judgment against his. Having ventured my opinion, it is but fair that I should give reasons for the faith that is in me.

On the day following my interview with you at my office (May 1), I was called to see Mrs. T. and found her suffering with what appeared to be severe and well defined labor pains. I was informed that there was a "show." The pains were regular, at intervals of about five minutes. I made a digital examination, and discovered what I expected from information obtained from you, the rigid and elongated cervix. Retaining my fingers during the next pain I was surprised to feel something hard and apparently round pressed downward by the force of the contraction, which differed from anything I had ever felt under similar circumstances. I concluded that this was the body of the uterus, for I could outline the fundus very distinctly. I pronounced that the case was one of extra-uterine conception, and that the child could not be born by the natural means. My rash announcement had the effect of causing a nervous attack, which culminated in a severe chill. This caused me to modify my statement and express a hope that I might be mistaken, and I left her promising to make a thorough examination the next day, on which occasion I thought I made out the extremities of the fœtus lying in a transverse position in the abdominal cavity. I distinctly felt movements, which, however, may have been caused by contraction of the abdominal muscles. By auscultation I am as sure as a man can be under the circumstances, that I could detect the fœtal heart sounds. I was strengthened in this belief by your statement that you also had heard the fœtal heart. The pains were still present, but under the influence of the drugs had abated in frequency and severity. There was considerable hæmorrhage, but no mucus. By digital examination I could make out the whole uterus as I did the night before. Feeling that as the case had gone to full term, I was justified in sounding the uterus, I attempted to insert my speculum, but the patient exhibited such evidences of nervousness and distress, I was obliged to desist from this crucial test until another opportunity, which unfortunately was never afforded me. The next day pain and hæmorrhage had ceased. I gave a guarded opinion, and counseled waiting.

Four weeks later the pain and hæmorrhage were renewed, but not so severe. Palpation and digital examination gave same results as before, but I was not permitted to examine per speculum. I noticed that there was a decided change in the shape of the abdoment, the enlargement having descended. The patient declined to permit me to take active measures to ascertain her true condition, so I was reluctantly obliged to again wait and watch.

Four weeks later the pains were again renewed but still milder. Her husband being in town he prevailed on her to consult Dr. ——, which she did. On examining her at his office he pronounced it an ovarian tumor. Subsequently, at my request, and after hearing my statement, he reexamined her, but did not change his opinion as at first expressed, although he could not cite an instance where an ovarian tumor had grown so rapidly in eleven months, and then suddenly ceased growing, and become much diminished in size in the course of one month. Such is not the history of ovarian tumors. I confess there are many points which tend to confirm Dr. ——'s diagnosis, and also his vast experience must be taken into consideration. But I will not be convinced that he is right until I have the evidence of a competent witness who has seen the tumor after removal. I would be much pleased to have your opinion of the case and be kept informed of its progress. I have taken great interest in it.

Very truly yours,
GEO. R. GRAHAM, M. D.
136 Columbia Ave., Baltimore, Md.

The patient refused to submit to an operation for fear she would not survive it, and determined to return home to Norfolk, which she did about the latter part of July. Being summoned to her, I found her excessively depressed in spirits, and with her mind made up that she had not long to live. Supposing the Baltimore diagnosis correct, it was difficult for me to find for her one word of cheer, for I could only comfort her by endeavoring to assure her that it might be years before it destroyed life. She argued that it must be rapid, as it had already grown to its present large size in so short a time. She importuned me to know if there was nothing to be done that might arrest its growth. I really thought there was nothing upon which we could build any hope, but, in order to occupy her mind and feed her hope, I told her I intended to try the effects of electricity, but before doing so, wished to make another examination, as I had not made one since I left her in Baltimore about the 1st of May. I was utterly surprised when this exploration revealed the presence of a fœtus. It was lying transversely across the abdomen, and so low as to force me to the opinion that it must be outside of and in front of the uterus. The head and buttocks were certainly distinguished and located, and so positive was my diagnosis that I declined to interfere with it and determined to let natur take its course. Just at this time the journals brought me the report of Angus McDonald's case of impregnation of one horn of a bicornual uterus, and there were so many points of resemblance to this case, I thought it would be a comfort to her to read it and to learn of its fortunate result, and at the same time to know that it was possible for even learned and experienced physicians to make mistakes in diagnosis. I found that I had not miscalculated its effects, for the next month (August) was spent in comparative freedom from anxiety. She would imagine that she sometimes felt the motions of the fœtus, but this I doubted, for I had become impressed with the idea that it was either a case like McDonald's, though in a different position, or was extra uterine, in either case most probably not living, as she was now certainly in her thirteenth and possibly her fourteenth month of pregnancy.

My surprise may be imagined when, on the 7th day of September, she gave birth to a living child, not very large (eight pounds), but certainly old looking. The bones of the head were very hard, but fortunately well lapped at the sutures. It is to-day (November 30) just twelve weeks old, but it looks double that age.

I have given this full and, what may seem, prolix history of this case on account of its anomalous character being unlike any that had occurred in my experience, or of which I have seen any record. In Angus McDonald's case, which has been mentioned (published in the *New York Medical Abstract* in May, 1885, page 168, from the *Edinburgh Medical Journal*, April, 1885), the fœtus went to full term and probably a little beyond it (to ten months), after which time it died *in utero* and was retained twelve months longer without decomposition, and the same mistake in diagnosis was made as in the case herein reported, which perhaps was more excusable, as the fœtus was not living, and had not been for twelve months. In my case the fœtus was living and carried at least four months beyond term. The only doubt that could be entertained by any one as to the correctness of this calculation was as regards the September diagnosis, of which, though I could not be positive at the time on account of the absence of some reliable signs the subsequent history furnishes abundant proof. The quickening unquestionably occurred not later than December 9, just nine months before delivery, the heart sounds were distinguished just eight months before that event, and probably ought to have been detected earlier.

If I have left any points in this interesting case at all obscure, I shall be glad to reply to any inquiries necessary to clear them up.

140 Freemason St., Norfolk, Va.

PUNCTURE OF THE LIVER FOR (1) HEPATIC INFLAMMATION, (2) ABSCESS, (3) HYDATIDS

BY EDWARD HORNIBROOKE, M.D.,

OF CHEROKEE, IOWA.

Hepatic Inflammation—Puncture of Liver, Recovery.—Edward Roach, æt. 35, farmer. Family history good. When he consulted me on July 1, 1876, he had all the symptoms of acute hepatitis. He was treated in the usual manner for three weeks, when a red, hardened, tender swelling made its appearance at the margin of the ribs. After poulticing and using the usual remedies for two weeks without alteration in the symptoms, it was decided, in consultation with Dr. Stoner, of Stratford, Ontario, to puncture with a trocar, after the method of Surgeon General Cameron, of the East India Army. A deep puncture was made, but no pus obtained. There was no shock resulting from the operation, and improvement commenced at once. The swelling subsided, the temperature fell from 102 on the day of operation to normal on the third day. He had fully recovered in four weeks.

No mention is made of this method of treatment in Bartholow's exhaustive article on diseases of the liver in Pepper's "System of Medicine."

Hepatic Abscess, Opening through the Lung, Puncture, Recovery.—Mrs. C. L. I., æt. 35, consulted me September 26, 1885. She had been under the care of other practitioners for eight weeks. She had the usual symptoms of hepatitis during the first four weeks of her illness. A swelling then appeared at the lower border of the ribs, which was said to have been soft and fluctuating. About two weeks before my visit she coughed up about two pints of horribly offensive pus, when the swelling and tenderness subsided. She continued to cough up enormous quantities of this pus—say one to two pints daily. In spite of treatment this continued without abatement till the 14th of October. Her strength was failing rapidly, and she and her friends became importunate to have something done to relieve her from the horrible taste and distress of coughing up this material. On October 14 it was decided, in consultation with Drs. Sherman and Burlingame, of Cherokee, to aspirate, with the largest needle, the lower part of the right lung, where, from the dulness of the percussion note and the other symptoms, we expected to find pus. None was withdrawn, and we then introduced the needle through the site of the original swelling. The needle was passed into the substance of the liver in several directions. A few drops of pus mixed with blood escaped, and the needle was found filled with blood and pus. It had been explained to the patient and her friends that this would probably be the result. The patient was under ether during the operation, and no shock appeared to result. The quantity of pus decreased day by day subsequently, the temperature fell to normal, the appetite increased, the odor of the sputa abated, and within a week she was convalescent. I saw this patient again on November 25. Her strength had increased, her appetite was good, and the amount expectorated was almost nil.

Does not the result of these two cases go to show that puncture of an inflamed liver sets up a new action and is directly curative in its effects, as had been argued, and I think proved by Surgeon General Cameron?

Hydatids of Liver, Puncture, Death.—On June 8, 1885, I was consulted by H. Boylan, æt. 55, who had been ill about one year, the most prominent symptoms being severe attacks of colic, want of appetite, great enlargement of liver, and gradually failing strength. A swelling on right side extended below the umbilicus, was hard, no fluctuation could be detected, and the lower margin well defined. On the left side there was also a large protuberance and well-marked sulcus and softness in the epigastrium.

The swelling on the left side was supposed to be the spleen No improvement resulted from medical treatment

On July 9, I punctured the liver in its most prominent part, just to the right and a little above the umbilicus No serum or pus was found, and as the patient was very weak and not under an anæsthetic I did not explore the liver so fully as I desired No pain or ill effects were experienced from the puncture He rallied for a few days and died suddenly on August 26

Autopsy eight hours after death, present Drs Sherman, Quirk, Meyers and Hornibrooke Heart and lungs normal The friends had stipulated that the head should not be opened The abdominal cavity contained a small quantity of serum The liver extended as low as the umbilicus and across the median line, filling the left hypochondrium and pressing against the spleen, which was of normal size and consistence The stomach was behind the liver which seemed hollowed out to receive it, and with the sulcus in front, gave the two parts somewhat the appearance of the old time physician's saddle bags, heavy and large at both ends and slender in the middle We could find no trace of the puncture which had been previously made The margin, especially near the epigastrium on the right side, was hard, the inferior surface concave The whole of the lower surface of the liver was studded with whitish, slightly yellowish, flattened vesicles (hydatid), filled with a whitish fluid Several hydatid cysts as large as a coffee cup were found in the substance of the liver, filled with a fluid similar in appearance to that found in ascites The gall bladder contained bile and we observed no obstruction to the duct

Cherokee, Dec 10, 1885

CORYZA, ITS CAUSES AND TREATMENT

BY GEO N MONETTE, M D,

OF NEW ORLEANS

This affection has hitherto been regarded as a disease of comparatively minor importance yet, latterly, owing to advances and improvements made in the modern method of treating processes, as well as the extravagant dissipation of the majority of the laity, as also the subsequent effect upon a constitution improperly developed physically, not being inured to the transitions of temperature by suitable clothing we find that the disease prevails almost universally becoming more prevalent in warm latitudes where hitherto, it was seldom prevalent. There has been, quite justifiably, an impression among the body politic, that a cold in the head (which is a decided misnomer) was nothing in entity but could be readily relieved, and permanently

Among the many features provocative of this malady, extraneous to hereditary influences, I am constrained to accredit the habit of smoking, as being the source of the majority of the most aggravated cases So many of the younger men mistake their nasal appendage for *smoke stacks*, that they essentially become victims to the relaxation subsequent to the stimulant influence of a steady stream of hot smoke through the nasal passages This relaxation ultimates in a species of hypertrophy of the Schneiderian mucous membrane, and of the continuity of the turbinated bones, where virtually exists the disease denominated catarrh In my practice, I have had numbers of cases under observation which I have denominated "*smoker's throats*," implicating the posterior fauces, palatine arches and walls, the uvula, the turbinate bones, the Eustachian ducts and the epiglottis and trachea The mucous surfaces were excoriated almost literally, the catarrhal phenomena were typically troublesome, and provoked an insatiable desire to clear the windpipe and owing to a decided narrowing of the canal (nasal), induced a form of dyspnœa which has been denominated nasal asthma The ingress of the volumetric *pressure* of air is far greater than the outlet at the posterior nares, due to an hypertrophied condition of the turbinate ossific vaults The excoriation undergoing cicatricial restitution ultimates in a pachydermatous condition, compromising the normal nasal secretions as also stillicidium, which indicates a fulness or thickened condition of the membrane, closing the *ductus ad nasum*

Atmospheric influences are most proverbially provocative, those extraneous to direct exposure, such as passing from heated to cold atmospheres, also after becoming superheated, then removing surplus clothing and having the action of the skin suddenly checked Dusty atmospheres especially, caused by rolling cotton bales, rice or coffee mills, lime kilns, shell roads, pikes, flouring mills, mop factories, enclosed saw-mills, grain elevators, and ship holds when being loaded with cotton or bulk grain Our shelled levee, with the slightest breeze, envelopes everything in a dense cloud All sorts of particles wafted promiscuously are potent irritants, first by such a quantity being inhaled and deposited upon the mucous surface, causes an acute secretion, and by a continuance or repeated attacks similarly entail a chronic exudative rhinitis which ultimates in an œdematous condition of the membrane, and finally implicating the nasal canal, and inducing really a form of acute osteitis or hypertrophy of the turbinate bones, which sometimes exfoliates and suppurates, and chronic ozœna results

Having enumerated various causes of this malady and having given, to some degree, the pathology of this annoying complication the treatment is next of vital importance Nasal douches without number have been directed against this anatomically delicate canal and with detriment ultimately Such are not beneficial, simply because of the difficulty of keeping the Schneiderian mucous membrane saturated (so to speak) with any medicament, and furthermore the forcible contact of the steady stream serves to enervate and ultimately to relax completely, from the subsequent engorgement. Vile irritant snuff compounds have been sold, and with no benefit Unscientific appliances have been manufactured, and recommended for use, directing the same upward instead of *horizontally*, to reach the imaginary locality of the disease

I greatly prefer the inhalation treatment, either by evaporated medicines, or by the insufflation of some emollient substances Astringents, strictly vegetable, are not indicated for permanent use I have found subnitrate of bismuth to be the most soothing, and absorbing the profuse nasal secretion relieves the irritable mucous membrane, when the defluxion is offensive, then a small quantity of iodoform combined with it deodorizes the discharge, which is removed by hawking The bismuth deodorizes the iodoform, and its peculiar odor is not perceptible after a short while My plan is to clear the canal, and inhale my powder only at night, retiring as much as will remain upon the end of a match My formula is

℞	Bismuth subnit	ʒj
	Iodoformi	ʒij
	M and pulv Sig —Locally	

This has never failed to relieve any case coming under my observation

MEDICAL PROGRESS

The Surgical, Physiological and Æsthetic Advantages of the Artificial Vitreous Body — Dr P H Mules read a paper on this subject at the last meeting of the British Medical Association Sympathetic ophthalmia, or disease of a sound eye, caused by injury to its fellow, was brought to the notice of the profession by Mackenzie, of Glasgow (*On Diseases of the Eye*, 1840) He referred to it as well known to his colleagues and himself, and, as the name implies, attributed it to nerve sympathy, or in modern terms, a "reflex neurosis" This theory held general acceptance until a very late period, and even now there are many believers in the sympathetic origin of the disease Be that as it may, a school has arisen which refers the disease to "bacteria" having its first point of localisation in the uveal tissue, there producing a specific uveitis with germs, "bacteroid bodies," capable of self-propulsion along the perineural lymph spaces of the first affected eye, across the chiasma, and down the lymph spaces of the sound eye, reproducing a similar affection, often with disastrous results Holding this view, I designed, for the prevention of sympathetic disease, or, as we now term it, "secondary septic ophthalmitis," the operation of "evisceration of the globe," on the lines hereinafter laid down, to be associated in suitable cases with the use of the "artificial vitreous body"

It is right here to state that the operation of "evisceration" has been occasionally practised by surgeons as an emergency-treatment, but the perfecting thereof, and the rules for its safe performance, were placed upon a secure basis by Dr Grafe, of Halle, and myself during the year 1884, working independently of each other To our illustrious countryman, Sir Joseph Lister, we are indebted for the antiseptic treatment which alone makes this operation feasible Perfect faith in the bacterial origin of this affection led me to the steps hereinafter named, for it was not enough to eviscerate the intra ocular contents, and leave only a small button of sclera on which to plant an artificial eye (immeasurably superior as it is to the operation of enucleation), and, following out the logical sequence, that total exemption from the dangers of sympathetic disease being assured by early removal of all the uvea, the introduction of a permanent hollow glass sphere within the denuded sclera could produce no ill effects, the result has fully realised the most sanguine expectations To attain this end, the following steps carried out with a scrupulous attention to detail, are necessary Any eye may be eviscerated, except such as are infected with tubercle, glioma, or any other known malignant growth Small stumps, when painful, can be opened, cleansed, bone or foreign bodies removed, and the pain and uneasiness disappear, leaving a smaller stump, but safe from danger to the sound eye, except in those instances where bacteroid bodies have travelled beyond the globe Even then it is a fair assumption that no more harm could possible accrue than if the stump was enucleated

The instruments necessary for the due performance of the operations are 1, a hand spray, 2, a siphon-tube of India rubber to flood the eye after or during operation, 3, an ample supply of solution of corrosive sublimate (1 to 1,000), 4, an eye speculum, 5, fixing and dressing forceps, two pairs, 6, a Grafe's knife, 7, a spoon to evacuate contents (Bunge, of Halle, has devised an instrument, but any scoop answers equally well), 8, needles threaded with chromicised catgut (fine size), 9, artificial vitreous bodies in assorted sizes, 10, dressings namely, iodoform, wood-wool pads in Lister's gauze, oiled silk, glycerine, boracic or sublimated bandages

The operation is divided into two parts The first part, complete in itself, is evisceration It is conducted as follows 1 Anæsthetise the patient 2 Use the hand spray, and thoroughly cleanse and disinfect the appendages with 1 to 1,000 solution of corrosive sublimate 3 Transfix and remove the front of the eye with a Grafe's knife at the corneo scleral margin, cutting round the conjunctiva first 4 Empty the contents of the globe in any way that is convenient, taking special care to remove the ciliary body and choroid, leaving a clean white sclera 5 With a thin India rubber tube (Inst 2), used siphon-wise, run the sublimate solution into the emptied globe, during the performance of the operation, it will help to arrest bleeding 6 Select the needles, slightly curved, for sewing up, and threaded with gut And here, if we please, we may leave the patient, secure in the knowledge that sympathetic disease will not attack the other eye, except under most exceptional circumstances, and that he will possess a movable, though very small, stump on which to adjust an artificial eye, but where a perfect æsthetic result is sought for, and especially in children, for reasons hereafter stated, we advance another stage, and before sewing up the sclera 7 Take the glass sphere best suited to the case, slit the sclera vertically, until the sphere will with difficulty enter the cavity This difficulty only refers to introducing the globe, when it is in, the sclera should unite easily without any tension, and leave no awkward angles, therefore the largest sphere fulfilling these conditions is the best, finally sew up carefully with strong chromicised catgut, taking care to get the scleral edges into apposition Five stitches are generally sufficient Lastly, draw conjunctiva over, and unite at right angle to the scleral wound 8 Spread a thick layer of finely powdered iodoform over the whole conjunctiva, and dress with salicylic-wool in a double layer of Lister's gauze 9 Keep the patient in bed for three days, and dress with hand spray, till all risk of septic trouble has passed over

Should you succeed in keeping the wound aseptic, the reaction is comparatively trivial, if suppuration ensue, the pain and distress may be severe, the orbit becoming infiltrated, and the sclera may slough away I cannot lay too much stress upon perfect asepticity The operation should never be performed without full precautions for its attainment, in any case, it is well to warn the patient that he may have pain in and around the orbit for a week

Union is in most cases rapid A firm round globe results, retaining all the associated movements *ad maximum* and capable of carrying an artificial eye which, when carefully centred and moulded, absolutely defies detection The stump is insensitive to manipulation, so that it seems impossible that irritation can be set up

In selecting eyes for an artificial vitreous body, it is obvious that shrunken globes must be passed over, as also those in which the conjunctiva is in a sloughy condition, as after burns, or destruction of the eye from gonorrhœal ophthalmia, but when the eye is of fair size, and the conjunctiva healthy, however diseased the contents of the globe, and especially in extensive fresh wounds, where primary enucleation is the alternative, the artificial vitreous body can be advantageously used Below is a table comparing the operation with that of enucleation

ENUCLEATION	EVISCERATION AND ARTIFICIAL VITREOUS
1 Complete removal of globe and its contents	1 Retention of the framework of the eye
2 Displacement of all muscular relations and arrest of movement	2 Perfect harmony of muscular movements retained
3 Cicatricial bands are a frequent accompaniment of enucleation The introduction of an artificial eye is thus rendered very difficult, and secondary operations necessitated	3 No bands ever occur after evisceration, unless through burns or other destructive agencies of a similar nature
4 Contractions, specially towards the orbital apex, occur, making new eyes a necessity and preventing all chance of a good fit So, also, the sinking of the glass eye and distortion of the lids is constant	4 A definite size of globe being introduced, no change ever occurs after the parts have quieted down in from six weeks to two months, nor can there be either sinking of eye or distortion of lids
5 The lower sulcus of the conjunctiva being constantly pressed upon by the lower edge of the glass eye—which, indeed, rests upon it—rough granulation, ulcerations, and thickening occur, which necessitate non wearing of the eye for lengthened periods, and may induce sympathetic irritation of the sound eye	5 The grave mischance, mentioned in Enucleation 5, cannot exist with the artificial vitreous body, as the concavity of the artificial eye, being kept closely applied to the convex globe by the lids and atmospheric pressure, is lifted up and rarely touches the inferior sulcus
6 The removal of an eye is a terrible operation to the mind of the patient, more especially as ill fitting glass eyes are so common that there is no solace to be gained from their contemplation, many promising lives having been wrecked through the shrinking from publicity caused by the self consciousness of an ill fitting glass eye	6 An artificial eye which defies detection must exercise an important influence over the mental, bodily, and social status of the wearer
7 Arrested development of the orbit in young children	7 Orbital development is successfully encouraged to continue

There can be no doubt that, if only a portion of these benefits can be conferred, the operation above described should be unhesitatingly adopted To weigh against it, we have 1, an operation requiring care, dexterity, and careful attention to detail, 2 careful dressings, and more personal supervision from the surgeon, 3, a longer convalescence and a longer time before the artificial eye can be used (the artificial eye should be used for two months), 4, it may be urged that we have no guarantee that the success will be permanent, time will show The first case shown at the Ophthalmological Society in March, 1885, has used an artificial eye for eleven months, the result, so far, is perfect A second has used it eight months, I have not seen him since, but know he is well, and others of late date

Let me again point out that, in young children, enucleation is followed by arrested development of the orbit This is an interesting physiological fact, the importance of which cosmetically cannot be overrated It is allowed by most competant observers that the introduction of the artificial vitreous body will encourage the normal growth of the orbit, and assist to maintain symmetry of feature The advantage of the operation is again manifest when I tell you that it may be undertaken at any age from 3 months to 70 years, with equal facility and absence of risk Lastly, I look forward to the placing of the pathology of sympathetic disease upon a basis absolutely incontrovertible through the medium of this operation, for I submit that, should we succeed in preventing secondary inflammatory attacks of the sound eye, we shall have reduced the bacterial origin of sympathetic disease to a demonstration

The correct fitting of an artificial eye being a point of the highest importance, it behooves the surgeon to see for himself and unhesitatingly reject such as do not fit accurately, and the movements of which are not free in every direction, otherwise the irritation caused by the pressure of an opposing edge, will destroy the benefit likely to accrue to the patient from the original operation —*British Medical Journal, Dec 19, 1885*

PARTIAL DISLOCATION OF THE HEAD OF THE RADIUS PECULIAR TO CHILDREN —In THE JOURNAL of January 23, p 94, was given an abstract of a short paper by Mr S H Lindeman, in the *British Medical Journal*, of Dec 5 MR J HUTCHINSON, JR, has a note on the same subject in the *British Medical Journal*, of Jan 2, 1886, in which he says that the best way of regarding this accident is to remember that the orbicular ligament, which in adults strongly grasps the bony head of the radius, in young children has a weaker hold on the same part, which with them is cartilaginous The nucleus for the head of the radius does not appear until the age of 5, and this limits pretty accurately the time up to which the lesion is commonly met with In fact, I could not produce it upon the bodies of children much older than this During traction on the hand, combined supination, as for instance, when the child is dragged along or lifted by the arm, the ligament is very liable to slip up Its attachment to the neck of the radius (only a thin membrane, which I have ventured to name the sub orbicular) may be at the same time torn through, though this probably does not happen in a large proportion of the cases Thus the bone slips a very little downwards, and a very little forwards Mr Lindeman thinks it may reach the depression above the capitellum, this would, of course, be accompanied by marked deformity, which is, on the other hand, conspicuous by its absence If it were not so, the true nature of the accident would not have been so long overlooked, and the lesion ascribed to a displacement of the fibro cartilage at the wrist, etc (see Tillaux's *Anatomie Topographique*, p 549, and also M Goyrand's work) Mr Lucy has observed and kept notes for me of a number of cases at the London Hospital, and we can unhesitatingly affirm that the deformity at the elbow would be overlooked by anyone, even if acquainted with the real nature of the lesion In fact, although a true dislocation, it is rather one of the ligament than of the bone It is perhaps possible, by "strongly supinating and pressing on the head of the radius," to reduce the displacement, but, in my paper, an easier and a surer way is described

Gently flex to a right angle, or a little beyond that, at the same time, gently but fully pronate the forearm By this method, if the case be one of the class described, the ligament will infallibly descend to its right place, again grasping the head of the radius The descent is known by the audible click (Mr Lindeman's "thud" hardly expresses it) which then occurs, and by the relief of the symptoms although the child is sometimes too young to reveal the latter, but the surgeon may feel sure, on hearing the click, that the displacement is reduced Mr Lindeman says that it is very liable to recur, I think this is due to his method (supination and pressure) not always effecting complete reduction We have, with reference to this point, charged the mothers to bring the child back if the symptoms recurred, and in no case have they done so No splint is absolutely necessary, although it is certainly well to keep the part at rest for a time

The reason why pronation and flexion succeed so readily, is probably to be found in the shape of the head of the radius That part of it opposed to the curve of the orbicular ligament, in full supination, has a rectangular edge, whilst in pronation it is rounded off and less deep, hence the ligament easily slips over the latter edge when brought up to it by flexion of the forearm

The frequency of this accident may be judged from the fact that, at the London Hospital, two perfectly typical cases have often been seen on the same day Whereas formerly they were liable to cause doubt and were unsatisfactory to deal with, their nature and the method of reduction are now fully established A few examples may be quoted from Mr Lucy's and my own notes

1 Sarah M , aged 2½, was admitted with left forearm semiprone and motionless, crying with pain on passive movement The mother had pulled the child up by the hand, the forearm being semipronated and fully extended, an hour before On full pronation and flexion a click was felt, and the symptoms disappeared There was certainly no lesion at the wrist

2 John B , aged 2 years, had been dragged from the floor by the hand The child, a fat heavy one, cried, let its arm hang, and couldn't hold anything The forearm was extended and semipronated, full flexion and pronation produced a click, the child ceased crying, and easy movements of the radius followed

3 May F , aged 1 year, was admitted with her forearm bent and semipronated One movement of flexion and pronation caused a click to be heard, and the child actively resisted any further manipulation

4 A young child was diagnosed to have "an injury to the head of the radius," and its arm was bandaged to the side During the next two or three days, she continually complained of pain in the elbow On her second visit, I fully flexed and pronated the forearm, the usual click was heard, and after that the pain and resistance on movement disappeared

Apparatus for Hip Joint Disease —At the meeting of the Medico Chirurgical Society of St Louis, on November 17, 1885, Dr Steele exhibited an apparatus for hip joint disease in the earlier stage and placed a patient upon it to illustrate his method of treatment The apparatus consists of a rectangular frame of flat iron which should be five or six inches longer than the patient, and a trifle wider than the distance from acromion to acromion This is covered with canvas or stout cotton cloth laced tight upon the frame, an opening being left at the centre, corresponding to the nates, for convenience in attending to the wants of the patient Some time ago he exhibited to the Society a portable splint for the treatment of hip-joint disease in the later stages The chief elements in the treatment of these inflammations is rest In hip joint disease we have an inflammation, and the therapeutic agent that would first suggest itself as most natural would be to keep the parts perfectly quiet This is a very simple thing in theory, but there is some practical difficulty in carrying it out This splint is made in such a manner that the patient can be carried about upon it The great objection to most splints is that they allow more or less motion in the joint, and, if the patient is moved about, inflammation may be excited In the earlier stage of hip-joint disease and in the very young it is better to confine the patient on his back by using this splint This apparatus he had presented to another society on a different occasion, but it had never been exhibited in St Louis before The patient lies upon this apparatus and there are shoulder straps which pass over the shoulder and prevent the patient from raising the trunk Perineal straps, attached above to a steel arm springing over from the side of the splint and fastened below to the canvas, afford counter-extension A little steel upright at the foot of the splint affords means of attachment for adhesive straps making extension Two little removable arms or legs can be attached to the apparatus to raise the patient This can be done by the attendant or nurse so that the bed pan can be placed underneath The use of this appliance for two years had given complete satisfaction

At the only hospital in which hip joint disease is exclusively treated—the one in London of Mr Howard Marsh—he confines his patients by straps to the bed He uses adhesive plasters attached to a weight for extension, and elevates the foot of the bed for counter-extension His results are not most promising, Dr Steele thinks because he does not thoroughly immobilize the joint He allows the part to move about more or less After exhibiting the apparatus a little patient was brought in and the mode of application was shown It was shown that by placing him upon this stretcher-splint and making the attachments, he could be carried anywhere The apparatus serves as a stretcher, and at the same time it acts as a splint Both arms, the head, and one lower limb are left free, so that he can play with his toys, and children soon become quite contented Mothers sometimes say it would be better for children to die than to be confined in this way, but they are very well satisfied with this confinement Extension is to be made not only upon the leg, as this may cause trouble in the knee-joint, but upon the entire limb

Dr Prewitt said that he was indebted to Dr Steele for this suggestion, and for something like two years had been using it and had been greatly pleased with the results He thinks it is an admirable apparatus He uses a piece of tubing at the foot and makes an elastic extension which he thinks possesses some advantages One patient from Fort Worth, Texas, started home a day or two after the apparatus was applied, and letters since received speak of the rapidity of the progress of the case and the speedy recovery of the patient He had used this apparatus in every case which had presented itself within the last two years since Dr Steele called his attention to it, in fifteen or twenty, at least —*St Louis Courier of Medicine*, January, 1886

New Method of Removing Foreign Bodies from the Nose —**Dr D Bryson Delavan**, of New York, thus describes his method of removing foreign bodies from the nose "The presence of a foreign body in the nasal cavity is usually attended with marked swelling of the neighboring mucous membrane Its extraction by any of the means in common use is accompanied with pain, often of great severity, and is often followed by copious hæmorrhage The swelling offers, of course, a serious obstacle to the extrusion of a hard body, while one which has increased in size from the imbibition of water becomes all the more firmly impacted Hence, in attempting the removal of the body, more or less laceration of the membrane is likely to occur The pain, with difficulty tolerated by an adult, causes a child to become in almost every instance unmanageable so that an anæsthetic is required The hæmorrhage is usually controllable after the lapse of a few minutes, but may, meanwhile, cause considerable annoyance From our knowledge of the physiological action of cocaine upon the nasal mucous membrane, it is evident that, by its use in these cases, all of the above difficulties may be overcome, for applied to the nose, the mucous membrane becomes strongly retracted, the sensibility to pain lost, and the blood vessels exsanguinated Thus, the calibre of the fossa is greatly widened, the irritation and consequent resistance done away with, hæmorrhage prevented, and the removal of the foreign body thereby greatly facilitated To carry out the method, the occluded nostril should first be cleansed with a spray or a gentle current of some luke-warm alkaline solution, after which a four per cent solution of cocaine should be applied to the mucous membrane When its effect has become complete, the extrusion of the body should be attempted by directing the patient to blow forcibly through the affected nostril Failing in this, it should be drawn out by some suitable instrument Should the patient be too restless to make this practicable, an anæsthetic may still be administered In cases of invasion of the frontal sinus or antrum of Highmore by insects or larvæ, cocaine should be applied to the membrane before the administration of chloroform or ether, in order that the canals leading to these cavities may become as patent as possible, and thus the vapor of the anæsthetic be admitted very thoroughly to the intruder's presence The insensitiveness of the membrane produced by the cocaine will, in these cases, certainly add to the comfort of the sufferer should it be necessary to inject, or still better, to spray the nose with chloroform "—*Medical Record*, Jan 23, 1886

Subcutaneous Cold Abscesses in Scrofulous Children in their Relation to Tuberculosis —**Giesler** has an article on this subject in the *Jahrbuch fur Kinderheilk*, Bd xxiii, Hft 1 and 2 Koch's investigations showed that tubercular disease, wherever located, depended for its cause upon the presence of the spore *bacillus tuberculosis*, this being the evidence, when found, of the tuberculous character of the complaint, and its absence equally showing a non tuberculous character The same disease is likewise producable in animals by inoculation with cultivations of this spore It is also affirmed that all inflammations in which the spore is found, or the products of which cause bacillar tuberculosis in animals, are equally of a tuberculous nature The question naturally arose, then, as to whether the tubercle bacillus was to be found in those diseases which resemble tuberculosis, both clinically and as to their pathological anatomy, especially in the case of scrofula and the results which were obtained varied, some investigators finding tubercle bacilli in all cases, others only occasionally or not at all In lupus the testimony is unequivocal as to its tuberculous character In scrofulous eczema no bacilli have been found in almost all reported cases In the class of cases which is under discussion, namely, subcutaneous cold abscesses in scrofulous children, investigation was first made with the microscope, but after a large number of examinations, with most powerful lenses and very careful search, only a single bacillus was found Seven cases were then selected, and, with material which was obtained from them, inoculation was practiced upon guinea-pigs and puppies, both by subcutaneous and intra-peritoneal application In all cases only negative results were obtained and the conclusion was reached that abscesses of this character, of circumscribed development, and developing from granulation tissue, do not depend upon bacillar tuberculosis, although they may contain giant cells and other lymphoid formations, from which it used to be thought that they were of tuberculous origin They are manifestations of scrofula but not of tuberculosis —*Archives of Pediatrics*, January, 1886

Laceration of the Os and Cervix Uteri, and the Operation of Trachelorrhaphy —The following is the summary of a lecture recently delivered by Dr Graily Hewitt on this subject

The operation is indicated by the presence of considerable hypertrophy of the os the result of laceration and the more so if hypertrophy and eversion be conjoined, by the presence of chronic severe local pain, evidently traceable to the irritation of a raw surface less extensive in amount or traceable to cicatricial hardening at the bottom of the fissure, by the association of marked laceration with a troublesome displacement of the body of the uterus, by the presence of a severe recent laceration, even in cases where no severe symptoms have had time to develop themselves, with the view of preventing (1) cellulitis, (2) the occurrence of cancer, (3) the supervention of symptoms generally, lastly, by the presence of general severe prostration, inability for locomotion, etc., obviously traceable to laceration

The operation itself is not, in most cases, a difficult one, but, in some cases it is so In assisting to hold the cervix down, I have found the large tenaculum hooked forceps, depicted in the last edition of my work on *Diseases of Women*, made by Mayer and Meltzer, of very great utility Some times the nodular hypertrophy renders co aptation of the edges, after paring them not easy, owing to one side of the rent being very short, the other very long Another difficulty is, in some cases, the excessive hardness of the tissues to be perforated by the needle, which is sometimes so great that much force is required to penetrate the tissues The needles need to be very strong for such cases I have found No 6 silver-ware most suitable for sutures, and have generally removed them in not less than ten days Probably it would be better to leave them a week or two longer, in cases where the patient is very weak and nutritive action feeble The importance of a preparatory treatment before proceeding to the operation has already been pointed out.—*British Medical Journal*, January 2 1886

On Thoracocentesis for Empyema —Dr. Paul Blumberg, of Baku, says that at present thoracocentesis is used only for the relief of serous pleuritic effusions to prevent access of air and free incision of, permitting air to enter, is in use for empyema. The author calls attention to the disadvantages of the latter operation (1) The patient is subject to offensive wettings with pus and blood, and therefore exposed to colds and skin-eruptions (2) The possibility of occasioning hæmorrhage by wounding the intercostal artery is a source of anxiety to the surgeon. (3) The operation is of longer duration and of greater painfulness than is necessary

On the other hand, however, paracentesis without admitting the air is not advisable (1) because it would have to be daily repeated (2) because all the pus could not be completely evacuated and (3) because the pus must have continual escape to avoid putrefactive stagnation The author therefore recommends the use of a silver canula one and one-eighth inch in length and of one-sixteenth inch calibre, large enough to admit a double current catheter, and furnished with a plate resembling a tracheotomy canula, this to be introduced with the help of a suitable stylet into the sixth intercostal space and left to remain for three weeks, the cavity being washed out daily with a 2 per cent carbolic solution A rubber tube is attached leading to a basin beside the bed, to carry off the discharge. In fact the author recommends the use of his canula in all cases of effusion, and if they prove serous in character, it may be again extracted He gives two cases —*Deutsch Zeitschr f Chirurg*, October 6 1885 —*Annals of Surgery*, January, 1886

Blotting-paper as an Antiseptic Dressing — Dr Bedoin, in a recent paper on antiseptic dressings suitable for military purposes, said that the requisites were that any dressing to be used on the field of battle must be simple, occupying but small space, inexpensive, and capable of being used for all surgical necessities He believes that he has found a substance which combines in itself all these requisite qualities—blotting or filtering-paper Before being used for surgical purposes, it should be disinfected by a lengthened exposure to a heat of 120° Cent., and by immersion in an antiseptic solution, and afterwards dried Wounds are dressed by the application of seven or eight layers of this paper, the whole being covered with gutta-percha tissue, and a bandage applied The dressing weighs only about 40 grammes, so that each soldier can carry one In the ambulance, this dressing can be applied by the surgeon with any others that it is thought well to employ —*British Medical Journal*, January 2 1886

Iodoform in Uterine Catarrh —Kugelmann, having noticed that iodoform very promptly cures coryza and laryngitis concluded that it would be beneficial in cases of uterine catarrh. He introduced the powder into the uterus by means of a very fine catheter The applications were renewed twice a week, and with excellent results The catarrhal hypersecretion diminished or ceased immediately in every case —*Gazette Med de Paris* No 52 1885

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible remittances may be made at the risk of the publishers by *forwarding in* REGISTERED *letters*

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, JANUARY 30, 1886

ELEMENTS OF PROGNOSIS IN BRIGHT'S DISEASE

In the issue of THE JOURNAL of January 9 we published a very interesting article on this subject by PROFESSOR AUSTIN FLINT, of New York The paper is both valuable and timely, although far from being exhaustive It was prepared for the purpose of "leading" a discussion of this important subject before the New York County Medical Association, and its author was obliged to compress his paper to the limits allowed by the time and place But Prof Flint presents some excellent thoughts in this brief paper, which ought to be urged upon the profession both frequently and persistently We propose to indicate and comment upon some of the more important points presented

Prof Flint first mentions the popular belief that chronic Bright's disease is always incurable, and to the fact that this belief "reflects the views of the medical profession"—and he adds, "this view of the prognosis is not far from the truth" With this most discouraging view we cannot agree, and we regret that it should emanate from so high a source It is indeed unfortunately true that the great majority of the cases of chronic Bright's disease—or, as Grainger Stewart so aptly puts it, "Bright's *diseases*"—end fatally, but this fact does not prove that it need be or ought to be so It is not creditable to our profession that every case of chronic Bright's disease is abandoned as hopelessly incurable Such is not the case A fair proportion of the cases of chronic parenchymatous nephritis are certainly amenable to treatment and to cure Nor is chronic interstitial nephritis by any means necessarily a fatal disease The great difficulty about it is simply this,—a diagnosis is not reached until the kidneys are hopelessly damaged And herein lies a grave charge of remissness against a large majority of us, patients are constantly treated for "dyspepsia," "biliousness," "headache," "spinal irritation," and a dozen other imaginary evils, when boiling a little of the patient's urine would clear up all doubts, and light the way to rational treatment We are not making an exaggerated statement when we say that fifty per cent of the victims of Bright's disease are in a greater degree the victims of a tardy diagnosis And the very fact that this disease steals upon us like a thief in the night, almost without appreciable symptoms, ought to double our efforts to detect its very incipiency. When the test-tube is used as commonly as the stethoscope, deaths from chronic nephritis will steadily diminish But when a physician firmly believes that a disease is incurable, he is not likely to put forth any very brilliant efforts in attempting to cure it. And when our most prominent teachers pronounce a disease incurable, the doctrine is in danger of becoming "popular"

Prof Flint mentions the well-known difficulty of determining whether a given case of acute nephritis is really acute primarily, or an acute explosion occurring in course of a chronic case And this leads us to make an assertion which will doubtless call forth a most hearty dissent from at least nine-tenths of the profession, namely that there are, comparatively. very few cases of primary idiopathic acute nephritis, but that the apparently acute cases, except the scarlatinal form, are preceded by a chronic lesion, possibly very slight indeed, but nevertheless real and appreciable This conclusion is based upon facts and arguments which we cannot state within our present limits, but it is our purpose to present this branch of the subject upon a future occasion

In the paper under consideration Prof Flint does a real service to pathology and therapeutics, as well as to prognostics, in broadly recognizing "sub-acute nephritis" as an idiopathic form of disease, and, as he well says, these cases "have not received sufficient attention by medical writers" Of late years, it has become quite too much the fashion to drop sub acute inflammations out of our calculations altogether An inflammation is either acute or chronic, and there is no halfway work about it according to our present incisive pathology Yet it is a clinical fact, that cases are constantly occurring, of renal and other inflammations, which occupy a middle ground and are truly sub-acute And this fact is a most important one in its relations to prognosis and therapeutics "Sub acute" has a much more encouraging and hopeful sound, from a therapeutic standpoint, than "chronic" He schedules, it will be remembered, the "elements of prognosis" in cases of chronic Bright's disease as follows

"*First* the kidneys must not be damaged beyond a certain extent," and inasmuch as one kidney is capable of performing the renal function, "it follows that a lesion may have impaired the functional power of the organ at least one-half, without necessarily giving rise to important symptoms of disease *Second* the important organs of the body other than the kidneys must be capable of performing satisfactorily their respective functions" *Third* "the laws of health, relating to alimentation, exercise, exposure to cold, mental excitement and habits of life must be observed" "Now," he continues, "suppose these, as we will call them, accessory conditions to be fulfilled, and a lesion of the kidneys to exist which diminishes their functional ability one half, *and the disease not to be progressive*, life and health are compatible with the existence of chronic Bright's disease for an indefinite period" To this we must agree In fact, a patient combining in his own person all these remarkable conditions would make a pretty fair life insurance risk, and his heirs would wait wearily for the reading of his will

But how many of us have seen a case of Bright's disease presenting all these conditions? Have we ever seen a case of chronic nephritis in which the 'important organs of the body other than the kidney" were "capable of performing their functions satisfactorily' (?) Is it not a fact that their functions are necessarily, invariably and unavoidably disturbed by the vicarious labor they are called upon to perform? Every candid clinician of experience must answer this question in the affirmative In truth, every case of chronic nephritis, of whatever type, involves not only functional but also lesional changes of other important organs Dr Flint speaks of non-progressive or latent Bright's disease, as though latency or inactivity might be safely predicated of a certain number of cases, as an element of prognosis There are cases of Bright's disease which progress very slowly, but they are few and far between, there are other cases which exist for an indefinite and unknown period of time before they are discovered, there are cases in which the urine is non albuminous at times and even for considerable periods, and there are cases from which the albumin slowly disappears never to return, but in all these types there is *progress, constant* and unceasing, and we cannot very well understand the term "latent" as applied to a process of disease, or to a process of recovery Progress may be so slow, in either direction, that a green old age may be reached before death or recovery takes place, but there is progress, activity and movement, nevertheless

In this connection it may be added that, in our opinion, the author entirely omits one important factor in the prognosis of Bright's disease, namely careful inquiry into the type or pathological variety, whether parenchymatous (or, as Dickinson prefers, tubal), interstitial or amyloid, for until the physician has sharply defined ideas as to the intrinsic pathology of a given case, he is in a poor condition to prognosticate concerning it

The remainder of the paper in question seems to be beyond criticism Especially are to be commended his remarks as to the question of "renal adequacy," and how it is to be ascertained Practitioners rarely fail to inquire as to the presence of albumin and casts, but too often neglect entirely the question as to the eliminating power of the kidneys As Dr Flint well says, "albumin and casts in the urine show that the kidneys are doing what healthy organs ought not to do, but the more important inquiry is, are they doing what healthy organs ought to do?" And this, as he further insists, can be ascertained by simply measuring the diurnal quantity of urine, and taking its specific gravity So long as the quantity of urine passed and its specific gravity give assurance that a sufficient degree of elimination is going on, "the indication for diuretics, hydragogues and sudorifics is entirely wanting We may add an emphatic approval of the protest against the indiscriminate use of diuretics, hydragogues and sudorifics, when they are not only not indicated but must do positive harm We have long and imperatively insisted upon this very point, and are glad to have the support of so high an authority as Dr Flint Especially, must we object to the needless and generally harmful use of diuretics in chronic nephritis, or, in fact, any lesion of the renal organs Dire necessity may compel the use of diuretics, but it must be regarded as an unfortunate necessity, since the prime condition of recovery in case of a diseased kidney is physiological rest, and diuretics do not tend to this

On the whole then, we must commend the thoughtful paper of the distinguished clinician to the careful attention of our readers Every such paper becomes a permanent and important integer in medical science, and we can only regret that in this case it was restricted in length

INTERMITTENT FEVER AND ENDOCARDITIS

The intermittent fever of malarial origin is so common an occurrence that even the humblest practitioner considers himself capable of its recognition. Indeed, so confident is he of his unerring ability in this direction, that he readily falls into the habit of branding nearly every fever, when accompanied by chilliness, as malarial. This habit is not only convenient to himself, by saving trouble and hiding ignorance, but it is also highly satisfactory to both patient and friends, since it agrees with their preconceived opinions. There are intermittent fevers, however, that are of very different origin. Their type is irregular and their course is particularly stubborn to treatment. It is probable that in most cases they conceal the original disease beyond detection.

Such a fever is that due to endocarditis. It is of great clinical interest, since a clearer knowledge of its peculiar features may aid in the recognition of that notoriously obscure affection. In 1882 Leyden contributed an excellent paper on this subject to the *Zeitschrift für Klinische Medicin*, which may be found in vol. 4 of that journal. He says the subject merits greater study than it has received. References to it in medical literature are scanty and for the most part are confined to observations upon the rigors characterizing most attacks of endocarditis. The older writers speak of the fever of this affection in only general terms. Even Traube's writings mention it but twice. In the second part of his work, while commenting upon a case of pyelophlebitis, he remarks incidentally that the fever of endocarditis is also intermittent. In the third part of the same work, Fraenkel, in a report of three cases of endocarditis, emphasizes the diagnostic value of rigors in this affection. Rosenstein, in Ziemssen's work upon special pathology and therapeutics, divides endocarditis into two classes according to the character of the fever. In one it is typhoid in character, and the differential diagnosis is often difficult. In the other the fever is pyæmic, being characterized by the formation of metastatic abscesses and by rigors. Litten likewise distinguishes a septic variety of the disease, in which the fever is more intense and irregular than in rheumatic endocarditis. Abscesses occur in numerous parts, accompanied by rigors. Such then, according to Leyden, is the desirability of a more detailed account of this form of fever, that he divides it into four groups or varieties.

In the first group the endocarditis attends and constitutes an essential feature of blood poisoning, whether from puerperal septicæmia or pyæmia resulting from traumatism or operations. This form of endocarditis is also observed in connection with phlebitis and abscesses, as shown by a case of hepatic abscess reported by Leyden. In his second group the endocarditis is manifested by a fever of greater or less intensity and irregularity. Rigors are present but conform to no established type. The cases reported by Traube, as well as several of Litten's, belong to this group. *In the third and fourth groups the course* of the fever closely resembles an ordinary intermittent, yet for the most part is irregular. At other times the paroxysms come and go for a while with the periodicity of a quotidian or tertian fever. In the third group, moreover, the endocarditis is not discoverable, and its existence is only surmised, or it is recognized only towards the close of the fever. The fourth group, on the contrary, is discovered with comparative facility and is therefore the most interesting. Here the endocarditis attacks an already diseased heart, although the disease may have been so fully compensated as not to have given rise to symptoms.

In the third group, owing to the absence of all functional disturbance or physical signs of cardiac disease, other than can be reasonably attributed to the fever, the existence of endocarditis can only be inferred. *It is rendered certain only by the subsequent* development of a valuable lesion or by the autopsy. The real nature of the fever is obscure. Since there is always enlargement of the spleen it may be an abnormal and stubborn attack of malaria, and incipient tuberculosis, or there may be a deep seated abscess or a pyelophlebitis of a cerebral sinus, or of the portal vein. Whatever it may be, it resists all ordinary remedies, such as quinine and salicylic acid. The patient becomes anæmic, wastes away and at length succumbs to the disease. In the fourth class of cases a simple endocarditis has existed previously, leaving a fully compensated valvular lesion behind. Some deleterious influence now lights up a fresh inflammation which this time is malignant. The exact nature of the toxic agent cannot be determined perhaps, but Leyden thinks the fibrinous vegetations already existing upon the endocardium furnish favorable nidus for attachment and development of micro-organisms. Affected valves may become healed by the adhesion or sclerosis of their surfaces, but ulcerated areas are prevented from healing by the layer of infected material covering them. The organism cannot get rid of these parasitic bodies which continue to thrive at the expense of the patient's system. Yet not alone the general health suffers, the heart muscle becomes invaded by areas of myocarditis which tells upon the vigor of the left ventricle.

As illustrating this last form of the disease, Leyden narrates the history of four cases, two of which came to autopsy. In one, the attack seemed to result from residence in a damp house. Another began to feel ill after having eaten oysters that were not quite fresh. In the third the disease could be traced to gonorrhœal rheumatism, while the fourth appeared to be due to malarial poison. All were subjects of previous heart-disease.

PROGRESS OF THE OPPOSITION TO THE ORGANIZATION OF THE INTERNATIONAL CONGRESS—SIGNS OF THE END.

When the American Medical Association at its meeting in New Orleans simply exercised its right to enlarge its Committee on the Organization of the Congress, and make it more truly representative of the whole profession, a few leading men having the control of two or three prominent medical journals captiously denied the right of the Association to meddle with the matter. They were soon compelled to abandon that position as untenable.

They next made a sudden and concerted attempt to prevent the Enlarged Committee from making any progress in the work of organization by the most reckless efforts to keep members of the profession from accepting any official positions in the Preliminary Organization of the Congress. They denounced the action of the Association, and openly avowed their preference to have the whole profession of the country disgraced by a withdrawal of the Congress to some other country rather than to make any honorable and fair concessions to the fairly expressed wishes of the National Association. In the meantime, the properly Enlarged Committee on Organization quietly progressed with their work, adopting complete and satisfactory rules of organization, and appointing the provisional officers of the Congress and of the Sections, thereby providing an efficient Executive Committee of the Congress to take all further control of its affairs. The Executive Committee promptly commenced its work by publishing the Rules and plan of organization for the Congress both in this country and in Europe. The announcement has been received with favor on both sides of the Atlantic, and active progress in the preparation of programmes of work for the several Sections is being made. Time has thus demonstrated that every effort of those who had banded together in opposition to the work of the legitimate organization had actually failed.

The Executive Committee, desirous of removing all excuse for continued divisions, and disregarding all personal feelings, honorably tendered as many appointments in their own body as the Rules of the organization permitted, to the most eminent of those thus far in opposition. Instead of meeting a prompt acceptance, the appointments were submitted to the organized caucus of the opposition in Philadelphia, in which were made professions of extraordinary regard for the National Code of Ethics and for the welfare of the National Association; but it ended in suggestions of an utterly impracticable character. More recently, as shown by our special Philadelphia correspondent, in THE JOURNAL of January 16, they assumed still further the rôle of professional harmonizers and special friends of the American Medical Association, while electing delegates to the Association in the meeting of the Philadelphia County Medical Society by methods unknown to the usages of the Society. This is a practical acknowledgment of the right and duty of the Association to make good all arrangements implied by the invitation to the Congress given in behalf of the profession of the United States.

The sample of their work done in the Philadelphia County Medical Society shows their last card, which consists in a desperate effort to control the election of delegates to the meeting of the American Medical Association in St. Louis, in May next. Their methods and purposes are now fully apparent to the profession at large, and their last game, under professions of harmony, will avail them no better than their former one of bluff.

"MUTUAL PROTECTION AGAINST BLACKMAIL."

The increase in the numbers of the legal profession does not seem to have done much towards disproving the old saying that "The end of the laws is to defeat Justice," and it is entirely probable that the saying will remain true until the intelligent American juror is legislated out of existence, and with him his counterpart, the "shyster" lawyer. In the preceding pages of this week's issue of THE JOURNAL is to be found a timely article on "Mutual Protection against Blackmail," by DR. EDMUND J. DOERING, of Chicago. We need not repeat the many and forcible arguments made in favor of a "Protective Association," as they have been well stated by Dr. Doering and the correspondents whose letters are quoted. We will therefore confine our comments to the objections which have been made against such an Association.

The first objection brought forward is, that the fact that a physician is a member of a protective association may prejudice the jury against him As a matter of fact Dr Doering quotes two legal opinions to the effect that the fact of membership in an association of this kind could not be, as a matter of law, properly brought before a jury, and that "the fact that the defendant was a member of such a society would not be competent evidence" If, however, the fact should get into the case in any way, it could be equally brought out that the association was not for the purpose of paying judgments, but only to defray legal expenses In this connection may be mentioned the suggestion of Mr O H Horton, that in specifying the objects of the association, they should include the protection of the public as well as of the physicians But Mr Horton's suggestion that the association should promise to keep professional secrets out of the courts is unwise, we think, as being a little in advance of common law, which does not recognize the right of a physician to withhold any secret

A second objection is that the counsel employed by the association might not be the man whom a few individual members would select to conduct their own case This is no objection at all to the formation of an association Travelers may as well object to riding on certain railway lines because the family physicians are not the surgeons to that road The association could not and would not undertake to compel the defendants to employ its attorney, it is simply for the purpose of assisting any member who may be so unfortunate as to be blackmailed, and see that he gets as much justice as can be had at the hands of a jury Many physicians cannot afford to employ counsel, and run the risk of having heavy damages awarded the prosecutor A judgment of two or three thousand dollars would be financial ruin to some physicians—for there are still some who are not capitalists As regards the manner in which some of these suits are said to be brought, we may say that it is *illegal* for a lawyer to undertake a suit on shares, or for what he can make out of it But the real difficulty in a great number of the malpractice suits brought is that the lawyers are not posted on the case Very many lawyers seem to think that the subject of fractures can be learned in a week, they do not know medicine, and know but very little legal medicine as a rule Should such an association be formed, then, the first duty will be to get an attorney who knows enough of medicine to undertake a case without being coached and "crammed" by the defendants If organized and conducted on proper principles, there seems to be no good reason why such an association should not be productive of good

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, January 18th, 1886

D W GRAHAM, M D, TEMPORARY CHAIRMAN

DR E J DOERING read a paper entitled

MUTUAL PROTECTION AGAINST BLACKMAIL

(See page 114)

DR F C HOTZ said that the extract of his letter to Dr Doering, which was incorporated in the paper, indicated that at the time it was written he did not think favorably of the project And, after listening with much interest to the doctor's arguments, he saw no reason for changing his opinion Professional reputation and honor is the most personal of all personal property, if he lost it, it does not hurt anybody but himself, and therefore if any attack be made on it he should certainly wish to employ among the able lawyers the one in whose ability he had the greatest confidence But he was not sure whether the lawyer retained by this protective union would be the one to whom he should like to trust the defense of his reputation The attorney might be as able, or abler, than the lawyer of his own choice, but should the case go against him, he should never feel satisfied that the lawyer had done all that could be done for him unless he had full confidence in him It is with the lawyer as with the physician, a question of confidence, and his patrons find no fault with his treatment as long as they have implicit faith in his ability

An objection of greater weight, however, has been urged by several of the doctor's correspondents in asking what possible effect it might have if the fact was brought out in court that the defendant belonged to such a union? The lawyers whose opinions were obtained and read by the doctor say it cannot legally affect the case There is no doubt but what this is true But the verdict of a jury in malpractice suits is not determined by the legal aspect of the case, and circumstances which cannot have any legal effect upon the case have often made a deep impression upon a jury and decided the case against the physician To illustrate In Dr Bettman's first trial the experts of the prosecution testified so unreservedly in the doctor's favor that had the case been then submitted to the jury without arguments, the doctor would have been acquitted at once To fortify his cause Dr Bettman's lawyer called a number of experts whose testimony was of course only cumulative Now what did the prosecuting lawyer do? Did he make an effort to break down the expert evidence by scientific arguments? No, sir, but he wiped out its effect upon the jury by the mere waving of his hand, speaking thus "The defense has piled up a mountain of expert evidence But, gentlemen of the jury, what does it all amount to? These doctors are working together in the same hospital Don't you see that they have a common interest to sustain each other, because every one of them may be in the same fix some day? Don't you know they are clannish? They won't admit that one of them can make a mistake. O, no!" One could fairly see the impression this harangue made upon the jury, and they rendered a verdict against the doctor, though it is certain the lawyers will say the fact of his being associated with the experts in the same hospital should and could legally not prejudice the jury. But it evidently did all the same. And after such experience, can you for one moment believe it would not damage the physician's cause if it was shown he and his experts belonged to a society formed for the express purpose of mutual assistance in malpractice suits. A mighty poor lawyer indeed he would be who could not make a great deal out of it before a jury.

Very interesting was that part of the paper in which the doctor evolved his idea how this new society could prevent, ward off, malpractice suits. He believes the shysters would not be so eager to engage in this business if they knew they had to fight a corporation with plenty of means to employ the best legal talent. Why this should discourage those fellows, it is hard to understand. They do not sue poverty stricken doctors. Whom they select for their victims they suppose to be rich and consequently able to employ a good lawyer. They do not expect to have an easy game, but why should they not try it? They don't risk anything by it. The blackmailer's stake is only two dollars and a half for filing his application, and his lawyer's stake is his time, which is not worth much anyhow. So you see, they have nothing to lose, but much to gain. What difference should it make to them whether the opposing counsel is engaged by one physician or by one hundred? If you wish to devise means by which this blackmailing nuisance can be stopped, or at least reduced to a minimum, you must try to get to the roots of the evil, that is, you must find the causes which usually bring it forth. And you will not go far to find them, for you find them right at your door, in our own profession, in the shape of *indiscriminate dispensation of gratuitous services and of unkind remarks of one physician about another*. Physicians are altogether too quick to give their services gratis to almost anybody at any time. But you know very well people do not value very much what they can get for the mere asking, they do not think much of what they get for nothing. And it is also a widespread notion (especially among the lower uneducated people) that the quality of service is regulated by the amount of money they pay for it, that the treatment at a free Dispensary, because gratuitous, is not the same, not as good as at the physician's office where they have to pay for it. These people cannot persuade themselves that a physician will take the same interest in a case whether or not he is paid for his services. The poor, therefore, are always suspicious that they do not get their full share of attention, they are quickly ready to charge their physician with carelessness if the case goes wrong. And with a patient in this frame of mind it takes but very little encouragement to begin a suit for damages. And in nine out of ten cases, doubtless, this encouragement is furnished by the members of our own profession. He did not mean to charge physicians with purposely, wilfully instigating a lawsuit against a professional brother. Though this has been done, such extraordinary baseness is a rare exception.

What Dr. Hotz had reference to is the inconsiderate, careless, thoughtless habit of expressing an opinion about a case, or a colleague. To illustrate: A physician at a Dispensary shows a bad case to professional friends, and without thinking of the possible evil consequences, makes in the presence of the patient some remark like this: "Well, perhaps I ought to have done this or that." The patient, already laboring under the impression that he was not fairly treated because he could not pay, sees in the doctor's remark the strongest confirmation of his suspicion, goes to a shyster and begins a suit for damages. And doubtless, in a similar way the mind of a patient is often poisoned and set against his physician by a careless or unkind remark of another physician. So many physicians are always ready to express their opinion about their colleagues in the presence of anybody, or to criticise their professional acts upon the information received from a patient or some old woman. Now you all know how these people misconstrue the words of a doctor, how they pervert the facts inadvertently. You must admit you cannot rely on what patients tell you, and you cannot form an opinion that is worth anything of a case you have not seen or been informed about by the attending physician. Why, then, don't you say so when some busybody asks you what you think about that case of Dr. H.? Or if you know the physician, say he is competent to attend to his own business, if you don't know him, change the subject. But at all events, unless he be a notorious quack, refrain from uttering any words which even only insinuate the possibility of a mistake or want of skill of your colleague.

Stop running each other down, stand by each other, sustain each other, "stick together and be clannish," let it be understood in public that no reputable physician will prostitute himself by going to court as expert for a blackmailer. If all the reputable physicians of this city adopt and act on this principle, blackmailing the medical profession would soon be a thing of the past, and malpractice suits more effectually prevented than by the organization of a protective union.

Dr. P. S. Hayes said that from his costly experience in a malpractice suit he felt that an association such as suggested by Dr. Doering would be of great service. The lawyer employed by such an association would speedily acquire such a fund of medical knowledge that he would be considered an expert in malpractice cases. He would not require an amount of coaching necessary to prepare for any given case as would be requisite in the case of a lawyer who had had no experience in such cases. His opportunity for obtaining information in a given case would be largely extended, for each member of the association to whom he might apply would be interested in giving him the desired knowledge. He would soon become acquainted with medical witnesses and know which would give the best testimony in any case.

An association of the character suggested by the paper, might be a means of educating its members in regard to laws bearing on the rights of physicians and their patients, now not generally understood. For one he is heartily in favor of such an association, and should give it his hearty support.

Dr. G. C. Paoli said Dr. Doering's paper is not only a valuable one, but contains such a high, noble, charitable feeling, that the Society ought to be grateful to him. He wondered that such steps had not been taken before, because so many of our professional brethren have not only suffered annoyance, but pecuniary loss as well. How can we expect from an ignorant jury a decision based on scientific knowledge and justice?

Dr. F. M. Weller said that the subject of the paper was worthy of consideration; that the discussion of the formation of an association with an object so widely different from the Medical Society seemed out of place; the one essentially scientific, the other in the nature of an insurance. The right to form such an organization was unquestioned; the policy should be considered by each individual. That while any one might be made the object of blackmail, he believed that charges of malpractice more frequently arose from the ignorance of physicians of the statutes affecting the practice of medicine, especially those of the criminal code, and of the rulings of the courts in cases.

Dr. H. D. Valin read a paper on

THE ORIGIN AND SIGNIFICANCE OF THE SEXES AND THE DETERMINATION OF SEX IN UTERO.

He said that it is not generally known that intermediate steps exist by which sexual generation is evolved from a primitive mode of conjugation of two or more similar organisms. The process of conjugation observed in the slime moulds resembles a sexual process of extreme simplicity. But this union seems to take place between undifferentiated individuals, and as no sexual organ or secretion is present, it could not be called sexual, and it is only a step higher than that observed by Ch. Robin in the noctiluca, individuals of which sometimes swallow others of their own species as they would a particle of food.

The evolution of the sexes is epitomized in the three following species of the volvox family: *Pandorina morum*, *Volvox globator*, and *Volvox aureus*. In the first the spermatozoids are not differentiated from the granules of the ovum, in the second they are so differentiated, and in the third the two sexes exist each in a different colony.

In the animal kingdom, some species of mollusks contain an organ (ovo testis) from which spermatozoids as well as ova are produced. In many animal species both sexes are contained in one individual, as in the case of tape worm, leeches, earth-worms, barnacles, oysters, some star fishes; and among the vertebrates such is the case in several species of serranus, as well as in other fishes. However, most of the vertebrated animals have the sexual organs distinct in two different individuals, but a condition closely resembling hermaphroditism often occurs by reversion as an anomaly; and should any one disbelieve that some remote progenitor of the whole vertebrate kingdom has been hermaphrodite, there remains the facts "that at a very early embryonic period both sexes possess true male and female glands" (Darwin), and in each mature individual rudiments of some of the sexual organs of the opposite sex are extant.

The condition of hermaphrodite is advantageous enough as long as the struggle for existence is but slightly marked, but in higher life, where the least advantage is of moment, hermaphroditism gives rise to separate sexes in the following manner: those hermaphrodites whose spermatozoids and ova mingle with the generative products of other hermaphrodites breed a progeny which is more vigorous than that resulting from a single hermaphrodite, and thus copulation between hermaphrodites became established is the struggle for existence; but this is an observed fact, for Darwin said: "There is reason to believe that with all hermaphrodites two individuals, either occasionally or habitually, concur for the reproduction of their kind."

Of course that set of organs in one individual hermaphrodite which had been used more frequently would the better perform their function, while the opposite set would become less active; and then we would find some hermaphrodites with better developed male organs, and others with better developed female organs; and the progeny resulting from the union of two such more differentiated individuals would be especially favored in their struggle for life and would breed individuals in which one set of organs would be abortive, while the other would be highly developed, as is the case in as high an animal as man. Such a transitory stage as alluded to above is met in mollusks, and in the common oyster; the genital cœca in any given individual are found to be either almost all ovigerous or almost all spermigerous (Huxley).

In the case of hermaphroditic human beings the organs of one sex almost always predominate over those of the other.

The foregoing facts and inferences warrant me in formulating the following hypothesis, which will explain the law of heredity. In hermaphrodites, while the organs of one sex become more highly evolved, at the expense, as it were, of the opposite sex's organs, this latter set, as embryology proves, is slow to disappear, and concentrates itself in the germinal matter. In other words, as the male organs become better developed, the spermatozoids acquire a faculty for developing a female offspring, and vice versa. This hypothesis is based chiefly on the facts that the queen bee (Huxley) contains a male germ in each of her unimpregnated ova, while the male bee transforms, by means of his spermatozoids, the same ova into females.

Determination of Sex in Utero.—In case each sex generally reproduces the opposite, as I claim, it is easy to understand why the number of each remains about stationary under ordinary circumstances. The law of Thury, of Switzerland, that "conception following menstruation produces females, and conception preceding menstruation produces males, harmonizes with my hypothesis if we consider that a greater number of spermatozoids and more active ova will reach the ovum in the uterus than would in the Fallopian tubes and in the ovaries, and should any given cause act to reduce one sex, the other sex would thrive the better and would reproduce a majority of the rarer sex, thus restoring the equilibrium, and insuring an equal number of either sex in the progeny.

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, January 7th, 1886.

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

W. H. H. GITHENS, M.D., SECRETARY.

DR. HOWARD A. KELLY exhibited recent specimens of

PYO-SALPINX, HYDRO-SALPINX AND PAPILLOMA OF THE HILUM AND GELATINOID THICKENING OF THE FALLOPIAN TUBE.

The histories of the cases will be given at some future time.

DR. WILLIAM GOODELL stated that while he recognized the necessity for operation in pyo-salpinx, he does not think it necessary in hydro-salpinx. He now refuses to operate in some cases of cystic disease in which one ovary may contain a cyst as large as an orange, or in which the tube may be distended to the size of a sausage, because the sufferings of the patient and her general symptoms are not severe enough to warrant the operation. In many of these cases the symptoms may all be removed by the rest treatment, and it should first be tried. Small cysts are frequently found in ovaries, especially when uterine fibroids are present, but they do not necessarily develop into large ones. In many cases the cause of pelvic symptoms can be diagnosticated by exclusion only, and even when small cysts or dilated tubes can be felt, treatment should be first tried, and will be sometimes successful without operation. He thinks the error of the present time is in the direction of too much surgical interference.

DR. E. E. MONTGOMERY remarked that there was a class of cases suffering from small ovarian cysts or distended tubes in which the rest treatment or any other loss of time could not be thought of, and in which operation seemed imperative. This was on account of the pecuniary condition of the patient, who may be self-supporting or who may be the only support of others; the suffering and exhaustion of the disease incapacitate them from work; relief is imperatively demanded, and he considered operation justified.

DR. GOODELL recognized this element of poverty, and has operated for this reason in some instances. He was led to make his remarks by a case now under his care. A lady was sent to him for operation after an opinion had been given by an experienced gynecologist of another city that relief could be obtained by operation only. On one side the ovary was enlarged, and the other ovary was prolapsed and tender. Rest treatment had wholly cured her. In these remarks he did not mean to cast reflection on any of Dr. Kelly's cases. Pus was present in all of them, and operation seemed to be demanded in all.

DR. B. F. BAER has been strongly impressed lately with the views expressed this evening by Dr. Goodell. Dr. Baer thought all conservative means should be tried before operating.

DR. KELLY replied that he had presented the specimens purely from an anatomical and pathological standpoint, and that he will give the histories at some future time, when the results of operation are well demonstrated. In each of them operation was imperatively demanded to save life. It is in such cases as those presented this evening that the great work in the future must largely lie. If the details of ovariotomy have been perfected in such cases as these the chapter is only being opened. They are not examples of Battey's operation, or Tait's operation, but stand as representatives of classes of disease well defined with equally well defined indications for treatment. The extraordinary difficulty of digging such masses as these out of the pelvis makes operative interference very fatal, although it is the only resort.

DR. WM. GOODELL read a paper entitled

A YEAR'S WORK IN LAPAROTOMY.

During the past year he had had forty-four cases of laparotomy, with four deaths, as follows:

	Cases	Deaths	Recovery
Ovariotomy	28	2	26
Oophorectomy	9	1	8
Hysterectomy	2	1	1
Exploratory incision	4		4
Pelvic abscess	1		1
Totals	44	4	40

Of these forty-four cases, twenty-five had been operated on at his private hospital, with two deaths; twelve were operated on at the Hospital of the University of Pennsylvania, with one death; and seven were operated on at the homes of the patients, with one death. Of these four deaths, one only was due to septicæmia, and that a case of oophorectomy, occurred in a private room of the Hospital of the University. It was not, however, due to hospitalism, but to the adverse circumstances of the case. The ovary and oviduct were filled with pus, and so matted by inflammation to adjacent structures that only a portion of them could be removed, and that in fragments. The pus unavoidably escaped into the peritoneal cavity, which was carefully cleansed and a drainage tube put in, yet a fatal inflammation set in. Another death was due to shock after removal of the womb containing a fibroid tumor with extensive adhesions, and weighing seventeen pounds. The two deaths after ovariotomy were not due to septicæmia, and are somewhat mysterious. One case was operated on at the patient's home in Bedford, Pa., and Dr. Goodell did not see her again. The cyst was parovarian, weighing forty-three pounds, was without an adhesion and was easily removed. The stitches in due time were removed, the bowels were opened and everything did well for twelve days Then obstinate vomiting set in and the lady died on the seventeenth day Six months previously she had had an analagous attack of obstinate vomiting in which her life was despaired of The fourth death took place from a supposed attack of malaria to which the patient was liable Both ovaries had been removed, the larger one weighing about thirty pounds There were omental adhesions and very firm parietal ones, needing a number of ligatures She recovered promptly from the operation, the wound united, the stitches were removed, and she was allowed to sit up out of bed On the seventeenth day malarial fever with bilious vomiting set it, and she died rather suddenly on the twenty-first day, with symptoms of heart-clot

Of the nine oophorectomies, four were performed for ovaralgia, three for bleeding fibroid, one for epilepsy, and one for a menorrhagia which had resisted every known therapeutic measure In three cases of ovariotomy, all of them with papillary cysts, rupture had taken place a few hours before the operation, but although the peritoneum seemed thickened and injected, no bad result followed He considered papillary cyst to be benign in the very great majority of cases, and that the danger from the escape of the ovarian fluid into the abdominal cavity was very much overrated He had not refused to operate in a single instance of ovarian tumor, no matter how low the patient was or how firm were the adhesions He had consequently had several exceedingly difficult operations Out of his twenty-eight ovariotomies there were twenty one with adhesions In four the adhesions were universal, in eight more they were intestinal, and in three they were uterine This very large proportion of adhesions, when compared with those of European operations, he could explain only on the theory that physicians in this country have not been educated up to the idea of an early operation, and to a recognition of the evils of tapping In the successful case of hysterectomy a tumor weighing eight pounds was removed, together with a portion of the enlarged womb As the uterine cavity was not involved, the large pedicle was transfixed, tied and dropped The four exploratory incisions were made with a view of removing the ovaries on account of fibroid tumors of the womb But in each the tumor was so fixed by adhesions that the ovaries could not be reached, and the patients had previously stipulated that in that case the uterine growth was not to be removed All did well So also did a case of pelvic abscess communicating with the bladder and rectum It was opened *per vaginam* by means of the abdominal incision, by which its exact position and size were determined

With regard to the technique of the operation for laparotomy, Dr Goodell stated that he used the ordinary knot and Staffordshire knot indifferently, that he now in the long incision cuts directly through the umbilicus instead of going around it on the left side, that he includes the recti muscles and all the tissues in the abdominal sutures, and that while not a very firm believer in the spray part of antiseptic surgery, he had resorted to the atomizer in every case but one, and that one did as well without it as most do with it

Dr Montgomery thought Dr Goodell should be congratulated upon his success, which is remarkable for operations in unselected cases in the United States He thinks the knowledge of the safety attending the application of Monsel's solution to oozing abdominal surfaces very gratifying He would have used it recently but for the fear of bad after effects He must, however, again enter his plea for the second ovary In young women small ovarian cysts are common, they are frequently found in post mortem examinations where there had not been the slightest evidence during life of their presence, and evidently these small cysts do not necessarily develop into large ones The two cases of secondary ovariotomy reported by Dr Goodell are not sufficient to warrant the rule of removing the second ovary when it is but slightly diseased As a counter-weight to Dr Goodell's cases he would mention that in the instance of a young married woman from whom he removed an ovarian tumor, and in which he left the other ovary, which was slightly affected, pregnancy has since occurred, followed by the delivery of a living child

Dr Howard Kelly remarked that Dr Keith had had remarkably good results from the application to oozing surfaces of a solution of pernitrate of iron He has observed the gradual disuse of carbolic acid in washing-waters in operations Dr Kelly prefers boiled or distilled water as used abroad, as he is sure that carbolic acid and other germicides are frequent causes of poisoning and bad results after operation He asked Dr Goodell what were his rules respecting the use of the drainage-tube in operations on the abdominal cavity?

Dr Baer had experimented with Monsel's solution In one case in which he used it he attributed the fatal result to it The coagulation by the iron is unsightly, and he should now consider it a last resort. He had had very good results from pressure by packing sponges against the bleeding points, combined with external pressure He withdraws the sponges at the last moment before tightening sutures, and then bandages the abdomen tightly

Dr Goodell remarked that Dr Montgomery was perfectly right in his defense of the second ovary, and he himself had performed double ovariotomy in only seventeen cases of the twenty eight He did not believe that every ovary studded with cysts would inevitably degenerate into an ovarian tumor So, in the case of slightly diseased ovaries in young married women, he would be disposed either to let them alone or to remove the diseased portion only But in women approaching the climacteric, or when other conditions would make it advisable, he would remove the second ovary as useless in itself and as a possible source of future trouble He has used the drainage tube but three times during the past year, once in the unfinished case of oophorectomy, again in the case of torn bladder, and in the case requiring over thirty ligatures and with universal adhesions In general he uses it when a free oozing of blood is to be expected, but he regards it as a source of trouble and removes it as soon as possible

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

Officers of the New York County Medical Association—The Etiology of Tumors—Library of the New York State Medical Association—The Suppression of Contagious Ophthalmia—An Act for the Better Preservation of the Health of Children in Institutions—Proposed Abolition of the State Board of Health—Annual Hospital Saturday and Sunday Collections

The annual meeting of the New York County Medical Association was held January 18, when the following officers were elected for the ensuing year President, Dr Charles A Leale, Vice-President, Dr John Shrady, Recording Secretary, Dr P Brynberg Porter, Corresponding and Statistical Secretary, Dr Glover C Arnold, Treasurer, Dr E S F Arnold, Members of the Executive Committee, Drs John H Hinton and C S Wood

On this occasion Dr Laurence J McNamara, one of the instructors in the Carnegie Laboratory, read a paper on the *Etiology of Tumors*, which was designed as a study of some of the existing theories on the subject, and an attempt to adapt them to the various forms of tumor which the author had had the opportunity of personally examining In speaking of sarcoma and carcinoma, which, he said, were formed after types of normal tissue, and were most frequently brought to the notice of the surgeon, he mentioned particularly the secondary formations or metastases which are met with in connection with them, and to their tendency to recurrence after removal Tumors based on the type of cartilage tissue, however, had been known to produce secondary deposits also These secondary metastatic or secondary deposits bore the same relation to the structures in which they found a resting-place, as the parent tumors, and assumed the same changes in growth, development and invasion of organs as the primary growth There could be no doubt as to the cells of these deposits coming from the original tumor, and the channels of infection are the lymph and blood In the ordinary cases of carcinoma examination of the advancing mass showed infiltration of the normal tissue by epithelial cells, and in this formation, at least, it was unnecessary, he thought to imagine a virus, transmitted to the body from without, as the cause of the proliferation As regards the malignancy of cancers, the important part lay in the misplaced epithelial cell The independence of these epithelial cells, when removed from their proper resting-place, might be seen in the cases of successful skin grafting

"Place them" he continued, "in the interstices of the loose connective tissue, bathed in the nutrient fluids of the body, and beyond the restraining influences of their own proper tissue, the result must be an increase in activity and development It is not so difficult to imagine the cases in which this infiltration might occur In some cases of breast-cancer which I have examined it seemed that I could make out a distinct connection between the swollen epithelium of the duct and the cells beyond This fact has been mentioned by others The epithelium in the duct and the connective tissue seemed identical in form and appearance"

Cancer, as a rule, seemed to develop on tissue subject to prolonged irritation The most recent changes occurred in the epithelial tissue, but the diagnosis of cancer could not be made until the epithelial cell formed nests in the connective tissue If this epithelial element did not come from the proliferating interpapillary processes, it might exist previously, and to suppose this was to admit the embryonic theory of Cohnheim, which involves the hypothesis of a previously existing element left over from the embryonic state and possessing the power, under favorable conditions, of developing into a distinct tumor When this theory was applied to the carcinomatous group of tumors, it was found that there was no direct proof of their embryonic origin In sarcomatous growths there was more difficulty experienced in accepting this embryonic theory, and until proof could be furnished that these embryonic cells exist in the body and develop into a distinct tumor under favorable circumstances, he was of the opinion that the theory of Cohnheim could not be logically entertained

Later on he said that clinical efforts or experimental works had never been able thus far to connect a bacterium with the cause of tumors They had never been inoculated, and they had never infected the surgeon Still, he thought that the infectious origin of sarcoma at least possessed at present great attractions The discovery of a vegetable growth as the cause of actinomycosis had some bearing on this subject The recent nodules in this affection were made up of small round cells, while epithelial cells and giant cells were found in those more advanced, and these appearances, as in the other forms of infective neoplasms, were due to the inflammatory action of the fungus Sarcoma, when rapidly growing, presented changes of a similar character in the reactive appearance of the cells, but if the growth were caused by a micro-organism, it was necessary to suppose that it was of a nature which requires very favorable conditions for its development

As to the microbic origin of carcinoma he said "It seems to me that the misplaced epithelial elements can account for all of the reactive changes in the cells of the matrix If a micro organism must be considered as the cause of this class of tumors, the question as to why it should affect the epithelial cells alone does not seem capable of explanation There is no evidence that would lead to the belief that it can change the cells of the organism into carcinomatous cells If the latter were true, the lymph glands should be transformed into distinct epithelial tissue" The action of the micro organism, he went on to say, is of an inflammatory character, specific in its nature In carcinoma the inflammatory changes represented the action of the cellular matrix, and the same might be said of sarcoma The hyperplasia of the matrix was but an indication of the efforts of the tissue to cast out or destroy the foreign body

In conclusion he said that it seemed that to no one theory could be assigned the production of these tumor-growths Some of them could account for their formation, as the embryonic theory explained the existence of teratoma The infection theory, while drawing the attention of the surgeon to the malignancy of certain growths, did not have to go outside of the organism and its cellular elements to explain their occurrence

At the close of the meeting the members adjourned to the Library of the New York State Medical Association, where they enjoyed a supper and much pleasant social intercourse The library is also in the Carnegie Laboratory Building, where the meetings of the County Association are held, and, with 35,000 volumes already on its shelves, presents a very attractive appearance

At a recent meeting of the Academy of Medicine the committee appointed last June to take measures, in connection with the representatives of the State Board of Charities, the Society for the Prevention of Cruelty to Children, and the Association for Improving the Condition of the Poor, for the *Suppression of Contagious Ophthalmia* in the asylums and industrial schools of the city and State, made its report through Dr Richard Derby It was stated that a large number of these institutions had been visited, the examinations being conducted by the sanitary inspectors of the Board of Health, accompanied in each instance by experts in ophthalmology Some of the facts elicited are shown in the following extract from the report "The Committee desire, in substance, to say that a worse state of things exists to day in most of the asylums visited than the preliminary report read before the Academy in June last indicated Reports received from various reputable physicians show that in nearly all the asylums of the city children are admitted without due examination of their physical condition, especially as to the condition of their eyes The reports show that the physicians who have charge of these asylums make no systematic inspection of either the buildings or their inmates, that no system at all adequate of quarantine is practiced, and that many of the asylums are grossly overcrowded Besides all this, very grave defects in plumbing have been found To protect the children cared for in the asylums and industrial schools of this State the Committee is satisfied that legislation is needed"

At the conclusion of the report, which contained a large number of details in regard to the abuses existing in the various institutions, as shown by the investigations of the Committee, Dr Derby submitted the draft of an *Act for the better Preservation of the Health of Children in Institutions*, which had been prepared by Mr Elbridge T Gerry, President of the Society for the Prevention of Cruelty to Children This proposed bill provides that every incorporated institution in the State receiving or caring for children (excepting hospitals) shall have attached thereto a regular physician in good professional standing Such physician shall carefully examine each child applying for admission to the institution, and shall give a certificate in writing stating whether or not the applicant is suffering from any contagious or infectious disease, especially of the eyes or skin No child suffering from any contagious or infectious disease shall be allowed to enter or remain in any institution in contact with children not so affected, but shall be immediately isolated or placed in a proper room or infirmary, which shall be provided for that purpose It is also made the duty of the physician to give notice in writing to the officers of the institution whenever any dormitory therein is so overcrowded that there shall be less than 600 cubic feet to each occupant The act was approved by a unanimous vote of the Academy, which also authorized the Committee to have it introduced into the legislature and to urge its passage

The Academy of Medicine has abolished two of its standing committees, that on medical education, and that on ethics, and hereafter the general Council will fulfil the duties pertaining to the latter The last new Section organized in the Academy is one on Orthopædic Surgery

In his annual message Governor Hill recommended the *Abolition of the State Board of Health*, and that its functions should be performed by a single commissioner instead The proposition has not met with much favor, however, and at a recent meeting of the Board of Health of the city of Kingston, on the Hudson, it was suggested that if this measure was proposed for the purpose of saving money, it would be better to abolish the legislature, as the less useful and important body of the two The Governor has very wisely reappointed as Surgeon-General Dr Joseph D Bryant, Professor of Anatomy in Bellevue Hospital Medical College, who has done a very excellent work in this position, and made it something more than an empty name

A short time since a case of small pox occurred in the insane asylum on Blackwell's Island, and 114 of the inmates and attendants were vaccinated Dr Seaman, chief of staff of the Charity Hospital, on the Island, says that that institution, through its system of vaccination, has done more to protect the public health than is generally known For ten years every patient admitted to the hospital has been vaccinated immediately after arriving, and in this way some 50,000 persons have been protected against small-pox

It is hoped that this year the annual Hospital Saturday and Sunday Collections will amount to $50,000, when all the reports have been sent in During the year ending September 30 last, the total expenses of the twenty one hospitals belonging to the Association were $601,801 There was an income from invested funds of $127,099, and from city, county and State appropriations of $29,635 The amount received from contributions other than gifts or bequests to the permanent fund was $201,492, through the hospital Saturday and Sunday collections, $29,917, and from paying patients, $136,403 Total, $524,016 The number of patients treated in the hospitals for the year was 11,969, and in their outdoor and dispensary departments, 109,741 P B P

LETTER FROM PHILADELPHIA

(FROM OUR OWN CORRESPONDENT.)

Election at the County Medical Society—Resolutions in Regard to the International Congress—Dr. Levis's Address before the Academy of Surgery—Col. Waring's Address on the Disposal of Sewage—Discussion on Pasteur's Treatment of Hydrophobia.

The last business meeting of our County Medical Society was, as your occasional correspondent "Spectator" has said, one of great interest. It was an unusually large meeting, because of the anticipated contest over the election of delegates to the State Society, and to the Amerigan Medical Association. It was well recognized that the election of the delegates proposed by the nominating committee would be taken to mean that the Society approved of the action of the Association at New Orleans in regard to the proposed International Congress, and that it endorsed the man who is considered here as the representative of all that that action implied. It was equally well understood that the election of the informally presented candidates would mean that the Society did not approve of what the Association has done, and will not endorse those who furthered it. There was a great deal of excitement at the meeting, and it was apparent that all present felt the importance of the vote which was to be taken. Before it was reached there arose a question of law. On the one hand the rules of the Society were cited, and it was claimed that no candidates could be considered as eligible except those proposed in the usual way by the nominating committee. On the other hand it was replied that, if this were the case the Society would not annually go through the farce of an election, the mere fact of holding an election implying that the voters could exercise a choice at the polls. In addition to this, it was claimed that the list proposed by the nominating committee was but part of a report, and that the Society could treat this report like any other, altering or amending it, as, for example, by substituting other names for those proposed, if it saw fit. Under this claim a motion was put and carried to substitute for the names on the ticket selected by the nominating committee another set of names, the same as were printed on the new list, which had been sent by mail to the members of the Society.

The vote in favor of this motion was about three to one, and showed pretty plainly the sense of the meeting. While the voting was proceeding, Dr. Agnew proposed the following resolutions, which were adopted:

Resolved, That at its annual election of delegates to the American Medical Association and to the Medical Society of the State of Pennsylvania, the Philadelphia County Medical Society desires to express its regret at the action of the American Medical Association at New Orleans, in view of the injurious results which have followed to professional harmony and to the prospects of the International Congress.

Resolved, That the delegates from this Society be instructed to endeavor to procure such modification of that action as may best conduce to the reestablishment of professional harmony and to the success of the Congress.

The result of the election was that the new ticket was chosen by the overwhelming vote of 169 votes as against 36 for the ticket of the nominating committee.

The annual address before the Academy of Surgery was delivered on January 4 by Dr. Levis, who selected for his subject *Impediments to American Surgery*. Of these, he mentioned lack of organized effort, and loss of unrecorded work. In this connection he urged a hearty support of the Committee on Collective Investigation appointed at the last International Medical Congress. He also referred to the reprinting of foreign works at a lower price than native medical works can be produced, and advocated the passage of an international copyright to protect our own authors. The value of the American text-books is to be seen from the fact that, in spite of the influence of local jealousy, in 72 colleges there are recommended to the students 157 American works on surgery as against 186 foreign works, and he mentioned with pride that of the American works there are three more in demand than any others, and these are all by Fellows of the Philadelphia Academy of Surgery. Dr. Levis also made a plea for the encouragement of the labors of men who live at a distance from the cities. He mentioned the achievements of McDowell, Atlee, and Sims, as indications of what may be accomplished at a distance from what are generally regarded as the best places for advances in surgery. A considerable part of the address was devoted to discussing the opposition to experiments on the lower animals. Here Dr. Levis was severe enough on the antivivisectionists.

Within a few days Col. Waring addressed the College of Physicians on *The Disposal of Sewage*. He presented his now well-known views in regard to this matter, illustrating the successful working of surface disposal of sewage by the case of the Norristown Hospital for the Insane, in this State, and on the edge of this city, where the entire sewage is carried, separate from the surface water, through pipes to a tank which communicates with a field 1000 feet feet away, where it is distributed over the surface. By this process the land is fertilized and the sewage is disinfected.

The last conversational meeting of the County Medical Society was occupied with a discussion of the method of treating hydrophobia recently announced by Pasteur. The paper of the evening was read by Dr. Dulles, who gave a summary of all of Pasteur's communications on the subject of hydrophobia, and endeavored to show that the evidence adduced from time to time by Pasteur in support of his various theories does not recommend them very strongly. He laid great stress upon the apparent contradictions of Pasteur's own statements, and the inconsistencies of his conduct, as, for example, when he asserted two years ago that he had a way of rendering dogs refractory to rabies in as large numbers as any one could wish, and yet has not rendered a single dog refractory to rabies outside of his laboratory in all that time. He called attention also to the fact that Pasteur's theories in regard to hydrophobia are in striking contrast to his theories in regard to other diseases which he considers to be like it in nature, such as *charbon*, and chicken cholera. The aim of the whole paper was to convict Pasteur of drawing illogical conclusions from imperfect premises.

Dr. S. W. Gross thought that Dr. Dulles did not do justice to Pasteur, and that he might be assumed to know what hydrophobia is, because there is a large veterinary school near Paris, France, to which he might be supposed to go to study the disease. He also claimed that Pasteur has protected dogs from inoculation with rabies, and it was safe to suppose he might protect human beings. To this Dr. Dulles replied that it might be reasonable to assume that Pasteur knows what rabies is, if he had not put on record some of the symptoms upon which he rests his diagnosis. But, he has done this, and has made it clear that his ideas as to the disorder are much too elastic, and liable to lead to error when applied by such an enthusiast as he is. As to the protection of dogs by inoculation, he referred to the fact spoken of in his paper, that in the past two years this ability which Pasteur claims has proved nothing but a questionable scientific curiosity. The most that can be substantiated for it is that Pasteur seems to be able to fortify the subjects of his experiments against the artificial disease which his virus produces in unvaccinated dogs.

Dr. Wood suggested that there must be a great deal of truth in what Pasteur claims unless we are to suppose his brain is undergoing the inevitable change. To this Dr. Dulles did not agree, saying that a man might be very wise in general and yet mistaken as to a special matter. This he thought to be the case with Pasteur, and he hopes it was not necessary to choose between considering him right in regard to hydrophobia, or crazy. It may be remarked that the sentiment here seems to be that Pasteur's claims are extravagant and entirely unproved, and we have not had any suggestion of the excitement which had been stirred up elsewhere about hydrophobia in animals or in men.

C. W. D.

MEMBERSHIP OF THE INTERNATIONAL CONGRESS.

To the Editor of the Journal:

Dear Sir:—While the International Medical Congress is being so vigorously discussed in the journals, it is possible the rank and file of the profession are being misled as to what was really expected of them by the *Original Committee of Seven*.

Some months ago the *N. Y. Medical Record* published a letter from Professor Hansen Grut, of Hummellaft, Denmark, to Dr. H. D. Noyes, of New York, containing the following statements in reply to inquiries made by Dr. Noyes of him as Secretary-General of the Eighth International Medical Congress, as to the "admissibility of homœopaths":

(3) "The *only* qualification required was that the member be a *legally acknowledged* medical practitioner in his country. *Our* homœopathists, who were legally acknowledged practitioners (Drs. Siemsen, Ferich, and others), were actually members, and undisputed members, of *our* Congress."

Now let us clearly understand what is expected of us. *First*. Is it expected that *our* homœopathists, who are also "legally acknowledged" practitioners in this country (Dr. Verdi, of Washington, member of the National Board of Health, for example), shall likewise have the right to become "actually members and undisputed members" of the Ninth International Congress, as Professor Hansen Grut says was the case at the Eighth at Copenhagen?

Secondly. Is it expected that *their* homœopathists (Drs. Siemsen, Ferich, and others) being "legally acknowledged practitioners" in their country, shall become "actually members and undisputed members" of our Congress, as Dr. Hansen-Grut declares they were of the Eighth?

Thirdly. If homœopathists are thus to be admitted to undisputed membership, is it also expected that the other *legally acknowledged practitioners* of this country, who belong to the eclectic, the physio-medical, the hygeio-therapeutic, and the mixed schools included in the enumeration of the legally acknowledged institutions in the United States, in the Report on Medical Education of the Illinois State Board of Health for 1885, shall likewise be actually admitted?

Now, what the members of the American Medical Association want to plainly understand is, whether the doors of the Congress are to be opened to *all legally acknowledged practitioners* whomsoever in this country. They can then decide at their approaching annual meeting just what to do. Meanwhile, perhaps Dr. Billings, as Secretary of the Original Committee of Seven, can explain what he and his Committee really did expect of the American Medical Association.

A. M. A.

BOOK REVIEWS.

The Physician Himself and what he Should Add to his Scientific Acquirements in order to Secure Success. By D. W. Cathell, M.D., late Professor of Pathology in the College of Physicians and Surgeons of Baltimore. 8vo, pp. 284. Fifth edition. Thoroughly revised. Baltimore: Cushings & Bailey. 1885.

The appearance of a fifth edition of this volume shows that it is well known and its merits fully appreciated. Consequently no extended notice is necessary. The work is more particularly valuable to the younger members of the profession, and cannot be carefully read without interest and profit. Its style is pleasing, and the statements inculcated are ennobling to the moral character, and calculated to inspire a higher sense of the true dignity of the medical profession. The publishers have executed their part of the work in good style.

MANUAL OF DISEASES OF WOMEN By CHARLES H MAY, M D, Late House Physician, Mt Sinai Hospital, New York, etc 8vo, pp 357 Philadelphia Lea Brothers & Co 1885 Chicago Jansen, McClurg & Co

Though there is nothing wrong in the matter of this book—since it has been culled the author tells us, from the works of Emmet, Thomas, and other leading gynecologists—there is nothing to particularly recommend it to the practitioner The student "cramming" for his examinations will find it particularly useful and it seems to have been prepared with this end in view But as we do not believe either in the theory or practice of "cramming" for examinations, we cannot recommend the book

ASSOCIATION ITEMS.

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION

MEMBERSHIP —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly JOURNAL of the Association for one year

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL

WHEN DUES ARE PAYABLE —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the JOURNAL for one year from the following July Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

DEATHS —When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

PAYMENT OF DUES FOR PREVIOUS YEARS —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

TRANSACTIONS OF THE ASSOCIATION —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

RICHARD J DUNGLISON, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

HEALTH IN MICHIGAN FOR DECEMBER, 1885 —For the month of December, 1885, compared with the preceding month, the reports indicate that bronchitis, neuralgia and pneumonia increased, and that typhoid fever, typho malarial fever and diarrhœa decreased in prevalence Compared with the average for the month of December in the seven years, 1879–1885, pneumonia, remittent fever, typho malarial fever, intermittent fever, diphtheria and consumption of lungs were less prevalent in December, 1885

For the month of December, 1885, compared with the average of corresponding months for the seven years 1879–1885, the temperature was about the same, the absolute and the relative humidity were more, and the day and the night ozone were less

Including reports from regular observers and from other sources diphtheria was reported in Michigan in the month of December, 1885, at sixty five places, scarlet fever at forty-two places, typhoid fever at twenty places, and measles at five places Reports from all sources show diphtheria reported at two places more, scarlet fever at three places more, typhoid fever at fourteen places less, and measles at one place less in December than in preceding month, November, 1885

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JANUARY 16 1886 TO JANUARY 22 1886

Major Warren Webster, Surgeon, sick leave of absence further extended nine months on account of sickness (S O 15, A G O, Jan 19, 1886)

CORRIGENDUM

FAGGE S PRINCIPLES AND PRACTICE OF MEDICINE —In a review of the first volume of this work in THE JOURNAL of January 16 1886 page 83 second column last line for idea read *index* To say that this volume is without an idea would be far from true and was equally far from the intention of the reviewer It is hoped that the mistake was evident as only a few line above it is said that with the exception of the matter of treatment 'the book is almost cyclopædic in the information contained in it

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI | Chicago, February 6, 1886 | No 6

ORIGINAL LECTURES

COCAINE IN HAY FEVER

Lecture Delivered at the Chicago Medical College,

BY SETH S BISHOP, M D ,
SURGEON TO THE SOUTH SIDE FREE DISPENSARY AND TO THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY

Gentlemen —America has probably a hundred thousand sufferers from hay fever, a number about four times that of the standing army Any information relative to this subject, especially if it offer a ray of hope of relief or cure, is eagerly sought by this vast army of unfortunates After several years' study of this disease I shall endeavor to present a correct account of the present status of our knowledge concerning its pathology and treatment The several names which this affection bears are unfortunate ones, inasmuch as they do not adequately express its pathology, symptoms, or causes The pollen of grasses, weeds and flowers, and the heat of summer, are but a few of the large number of exciting and predisposing causes

If I were to invent a name for it, both simple and expressive of the nature of the disease, I should call it nervous catarrh I do not know that it has ever been called by that name, but it has not been generally conceded, until recently, that the malady was essentially a nervous one Perhaps a better name than the one I propose could be found, if one should insist that technical terms only, such as neurasthenia, should be admitted into medical nomenclature But nervous catarrh is an expression which would indicate both the true nature of the disease and the prominent symptoms which characterize it The term hay fever does neither, for while hay, in common with many other kinds of pollen, dust, fumes, gases, and so forth, may excite attacks, many suffer from paroxysms into which neither hay nor fever enter as a factor, either causative or symptomatic

In my first efforts to gather information on this subject I discovered that hay fever was considered a conundrum by a part of the profession and a myth by the remainder By the paucity of the literature of the subject it was evident that medical authors did not mean to write most concerning that of which they knew the least From the time of Bostock's discovery of the disease in 1819 to the year 1876, the nature of this affection seemed to be but ill-understood In the light of the accumulated knowledge of the past ten years, however, it seems to be well established that its proper classification is among the neuroses During my first experience with this intensely distressing disease, I followed Helmholtz's suggestion to destroy the vibrio-like bodies which inhabited the nasal secretion, and which he supposed caused the attacks, by the inhalation of a nebulized solution of quinine This gave relief I next tried the effects of administering the same drug internally, and was rewarded by even more satisfactory results Certainly the infusoria in the nasal secretion were not destroyed by the internal use of half a dozen grains of quinine a day

The susceptibility must exist in the nervous centres as well as in the end organs of the nerves Otherwise there is left no rational explanation of the fact that heretofore internal medication by nerve tonics and sedatives have proved more serviceable than local treatment This conclusion seemed to be verified by the fact that it had been demonstrated that a severe catarrhal condition of the nasal mucous membrane followed ablation of the spheno palatine ganglion, which shows the intimate relation sustained between that sympathetic nervous centre and the nervous supply of the mucous membrane involved Branches from this ganglion are distributed to the lining membrane of the nose, soft palate, and the end of the Eustachian tube The motor root of this ganglion is derived from the facial, and the auricular branch of the pneumogastric nerve unites with the facial Thus is established an intimate connection between the nervous supply of the nose, throat, Eustachian tube, larynx, and bronchial tubes, and the explanation of the occurrence of aural and asthmatic symptoms as the result of nasal irritation is made clear It becomes evident, then, if we study the disease from anatomical, physiological and clinical standpoints combined, that there is but one theory which satisfactorily reconciles all the known facts According to that theory three conditions are requisite to the existence of a paroxysm of hay fever First, abnormally sensitive nerve centres, secondly, a hyperæsthetic condition of the peripheral extremities of the nerves, and thirdly, the presence of one of a vast number of irritants

The truth of the first proposition is evident from the fact that it is the only one which satisfactorily explains why but few individuals are affected, out of a large community, all the members of which are alike exposed to the same irritating ingredients of the atmosphere, why ablation of the spheno palatine ganglion causes a severe catarrhal condition of the nasal mucous membrane, why nervous depression, or exhaustion (neurasthenia) predisposes to hay fever attacks, why tonics and sedatives to the central nervous system alleviate, abort, or prevent attacks, why sudden mental excitement may prevent an impending paroxysm, or abbreviate one after its onset, why the disease generally attacks one at precisely the same time, lasts the same length of time, and disappears at the same time on each recurring season, why the class of people who suffer from this affection are the nervous, brain-working type, instead of the phlegmatic, slow going kind, who may be more exposed to the pollen of the field or the dust of the work-shop and street, but whose minds are strangers to the nervous stimulation and mental tension of the professional man, why the paroxysm is as sudden in its invasion as asthma, striking one *at any moment of day or night, awaking one from* sound slumber, or taking one unawares during the pleasant engagements of the day, and leaving one as quickly and mysteriously as it came

Moreover, some functional nervous diseases are transmutable, one into another I have witnessed cerebral hyperæmia decline and disappear as hay fever superseded it, and after several years' duration the hay fever has in turn been displaced by asthma, as spasmodic and characteristic in its nature as the hay fever itself Simple asthma may not only supplant, but may complicate it, constituting hay asthma proper

An error which has been as popular as the Helmholtz theory is the supposition that this affection is necessarily limited to any particular season The enervating effect of extreme heat in summer is an important predisposing cause, as affecting the nerve centres, but in the colder seasons the depressing effect of the heated atmosphere of overcrowded, ill-ventilated rooms, and any causes which render the nerve centres more sensitive, and consequently less able to resist impressions from external irritants, are also provocatives, and bear the same causal relation to hay fever as does the heat of summer

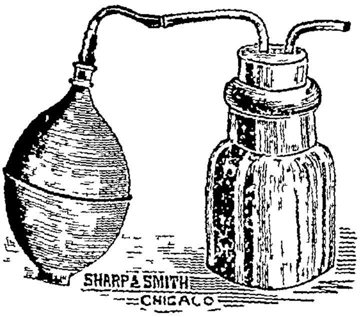
In stating the second condition, it will be noticed that I have not limited the hyperæsthetic condition of the peripheral nerve fibres to those which terminate in mucous membrane alone To demonstrate the correctness of my implied hypothesis it is necessary only to cite those cases in which paroxysms are produced by the rays of the sun, or other bright light, irritating the retina, or an attack provoked by irritating the scalp with a comb, or shaving the upper lip, or a draught of cold air chilling the back of the neck, or hands, or feet A reciprocal relation exists between the capillary circulation of the skin and that of the internal organs, but more especially affecting the mucous membrane lining the air passages Let the surface of a hay fever patient become chilled, the skin anæmic the perspiration checked, and immediately there follow a corresponding hyperæmia of the mucous membrane of the respiratory passages, an increased activity of the muciparous follicles, exquisite tickling and painful itching in the nose and pharynx, succeeded by violent sneezing, profuse discharge of nasal mucus, suffused and tear bedimmed eyes, photophobia, a rush of blood to the head and face, severe headache, complete occlusion of the nostrils, nervous exhaustion, and such a desperate shaking up of the whole being as is comparable to a wrecked vessel in a terrific storm But in this violent agitation of the body I have discerned a blessing in disguise, for it restores the balance of circulation to the skin, the temperature rises, the sudoriferous glands resume their activity, and the skin is again bathed in perspiration At this juncture the vicarious suffering of the respiratory surface is relieved and the normal equipoise of functional activity ensues In one who suffers from the asthmatic form of hay fever, to the symptoms already enumerated should be added the characteristic symptoms of asthma proper These alone make one's lot hard enough, but when added to the so called aristocratic disease, *present a highly colored picture of the refinement* of torture

The truth of the third proposition is self-evident, and the number of irritants, such as pollen, dust, matches, and so forth, which directly excite attacks, would be too extended to enumerate

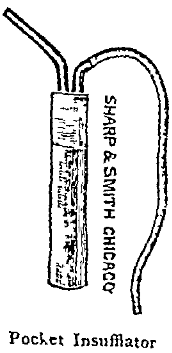
The treatment of hay fever is preventive and palliative No curative treatment has heretofore been discovered The preventive treatment has compelled sufferers to become fugitives from the air breathed by common mortals, and to seek mid ocean or the tops of mountains in their seasons of distress The most important palliative remedies are quinine, chloral, and morphine internally, and quinine, chloroform, and carbolic acid by inhalation In my experience quinine has given more relief than any other remedy, but there is great danger of impairing the hearing by the use of large and frequently repeated doses, for it causes congestion of the middle ear, and probably of the labyrinth The ideal curative treatment would be that kind which addressed itself to the seat of the disease, which resides in the central nervous system Narcotics are the only known remedies which render it entirely oblivious to the presence of the many harassing irritants which insist on being recognized, and which appear to have the same relation to the nervous centres that persistent office seekers do to the President But since it might be objectionable to keep patients in a comatose condition during the weeks or months of their hay fever seasons, the only medicinal treatment left to our choice is that which affects the peripheral termini of the nerves

Cocaine has grown, mushroom like, into a wonderful popularity Let us hope that its usefulness in hay fever may not prove as ephemeral as its growth Unfortunately, those drugs which are most influential for good are also most disastrous in their effects *when their use is not directed and limited by skill* Cocaine is no exception to this rule, and the sooner the knowledge of its harmful properties is widely disseminated the better it will be for all who may have occasion, or invent an excuse, for its use Serious results have attended its use in the nasal cavities Being a powerful local anæsthetic, its advent has been hailed with enthusiasm by all that large class of sufferers whose sensitive mucous membranes make them miserable. Many who used cocaine during their attacks last summer believe themselves to be cured. But let us look facts fairly in the face and state candidly truths which we cannot evade if we would. Can we expect the cure of a disease, the perpetuity of which seems coextensive with the subject's life, by a remedy the effects of which are transitory? The rapidity of action and the intensity of analgesic power of cocaine are indeed remarkable, but its benumbing effect lasts but one or two hours, or less. In order to extend its influence over a considerable number of consecutive hours or days, it is necessary to repeat the applications of a four per cent solution as often as once in an hour or two, and even at briefer intervals. The consequence is an absorption of so large a quantity of the drug as will produce its physiological and even toxical effects. This, together with the fact of its evanescent character, would seem to render it highly improbable that cocaine will ever prove to be a cure for hay fever. As a palliative it acts like magic in some cases. At first I employed a four per cent solution of the hydrochlorate, applying it to the sensitive points by means of surgeon's cotton twisted on a holder. That failed to relieve, and excited paroxysms of sneezing. This result was due to the fact that too little of the solution was conveyed to the parts. Afterwards I used the same solution with a camel's-hair brush taking pains that the parts were first thoroughly cleared of mucus, and immediate relief was obtained. A two per cent solution has often proved effective.

I have more recently used a six per cent powder of cocaine and sugar of milk, in an insufflator which I have devised for hay fever patients, for self treatment. The instrument is small enough to carry readily in the vest pocket, and can be used easily the instant an attack seems imminent. The insufflator consists of a two drachm vial with a stopper through which pass two vertical tubes. These do not extend below the under surface of the stopper. Above it they are bent in opposite directions. To one of these bent extremities is attached a rubber tube, to the free end of which the mouth is applied. A slight puff of the breath is sufficient to send the powder through the opposite tube into the nasal cavities, when the instrument is in position. The tubes should be made of vulcanite, and the vial should not be more than two thirds full. The instrument is constructed after the plan of my larger office insufflator, except that in the latter a rubber bulb supplies the place of the mouth. This method of applying cocaine in powder is simple, effective and easily practiced even in public assemblages, without making one feel offensively conspicuous. I may dismiss this part of the subject by remarking that many cases have been wonderfully relieved by this treatment. In compliance with the request preferred by some of you, I shall speak of its general as well as its topical effects.



Office Insufflator



Pocket Insufflator

When applied to the mucous membrane of the nose, a four per cent solution produces, in a few seconds, a sense of numbness which grows more marked as the applications are repeated. If they are renewed at intervals of five minutes for fifteen or twenty minutes, at the expiration of that time the mucous tissue may be cut or cauterized without any well defined sensations, unless the instruments enter very deeply into the sub mucous tissue. If sensations and pain return soon after an operation it may be obliterated again by a fresh application. Very soon after cocaine has been applied, the membrane looks pale and turns almost white, so anæmic does it become. It retracts in a marked manner even if it were swelled before the application. But I have repeatedly observed a still further effect which I have not seen mentioned in any account of the action of cocaine. Although its primary action produces anæsthesia and anæmia of the membrane, there occur secondary effects which will materially impair or destroy its usefulness in some cases. These secondary effects are great swelling and hyperæsthesia of the parts treated, and these symptoms are even more prominent than they were before the drug was applied. This unhappy result I observed in the treatment of a severe form of hay fever, and in consequence of the augmentation of all the symptoms after the effects of the cocaine wore off, I was compelled to abandon that treatment. Several cases have come to my knowledge in which this action of cocaine has ensued. It seems to act upon the vaso-motor nerves, independently of the central nervous system. The blood-vessels are at first constricted, then dilated, and generally resume their normal calibre. In the exceptions which I have mentioned the dilatation remained for hours, and in one case persisted for a number of days, accompanied with varying degrees of hyperæsthesia. The latter symptom was very acute for several hours succeeding the anæsthetic effects, but gradually diminished until the membrane became no more sensitive than it was before the treatment. The secondary swelling closed the nostrils so completely that no air could be forced through them. In sleep it was necessary to breathe through the mouth, which occasioned extreme dryness of the throat. The breath had to be held while eating, and with every act of swallowing the air was forced into the Eustachian tubes, and even particles of food seemed to take the same course. No one can realize the importance of open nasal flues until he attempts to eat, sleep or talk with them closed. Cocaine would relieve this secondary tumefaction temporarily, but it would return after each application. Fortunately there seem to be but few who are so peculiarly affected by this remedy I have employed it in many cases of various diseases in which I have observed no disagreeable consequences and shall be glad to relate the gratifying results obtained at another time

The physiological and toxic effects are somewhat similar to those of theine and caffeine Cocaine is a powerful poison affecting the nervous, respiratory, circulatory and vaso motor systems In small doses it is a prompt and decided cerebral and cardiac stimulant without inducing coma The pulse and respirations are accelerated, the intellectual processes quickened and exhilarated, and the mental vision delighted with agreeable hallucinations Diplopia, constipation, muscular tremors, vertigo and nausea are a series of symptoms attending larger doses Still larger doses produce contracted pupil, complete paralysis of sensibility, tetanic spasms, and death It does not produce muscular paralysis, but does paralyze the entire posterior columns of the spinal cord, and the entire system of peripheral sensory nerves Accounts of cocaine poisoning disagree as to the condition of the pupils In some cases they are said to have been widely dilated, in others contracted, as in opium-poisoning Cocaine placed in the eye dilates the pupil widely However, cocaine poisoning simulates opium poisoning so closely that the former has been mistaken for the latter and treated for opium poisoning, with recovery

The new surgical treatment of hay fever, which consists in cauterizing the sensitive areas, is too recent to have afforded permanent results Not wishing to prejudice against the operation those to whom it might prove beneficial, I willingly part company with this phase of the subject But I cannot do so with fidelity to the profession and to this class of patients without warning them of possible consequences This treatment may precipitate paroxysms of veritable asthma In fact, two applications of the galvano cautery, under cocaine anæsthesia, have superinduced true asthma without curing the hay fever

He who finds a cure for this disease need take no thought for the morrow, for that great army of sufferers would cast their golden treasures at his feet, and profession and people alike would erect to his memory a monument more enduring than bronze and more lasting than stone

139 Centre Ave , Chicago

ORIGINAL ARTICLES

EXPERIENCES WITH THE AXIS-TRACTION FORCEPS

BY T FELSENREICH, M D ,

DOCENT OF MIDWIFERY AND GYNÆCOLOGY IN VIENNA

I consider it very fortunate that the years of my service as assistant just coincide with the time in which great progress was made not only in gynecology, but also in midwifery The thorough use of antisepsis, the entire reform of the *sectio Cæsarea* by the method of Porro, the modification of the forceps for the higher-lying head, suggested by Tarnier, the prophylaxis against *blennorrhœa neonatorum*, took place in the short period of six years, during which I was clinical assistant By this circumstance I had the opportunity to study these points in an exact manner, alone and with colleagues, as it is not possible to do in private practice

I operated originally with one of the first patterns of Tarnier's forceps The result was then bad both for mother and child But we had chosen severe cases, very wrongly, for this is the way to discredit even a good and useful method in the first stage of its development But even these experiments with Tarnier's[1] complicated forceps were sufficient to prove thoroughly the correctness of his principles For Vienna it was principally important that Prof Gustav Braun should come to the same opinion and decide to follow the further modifications of this forceps and to try their value Without G Braun we probably should not know about the axis traction forceps practically more than that which Kucher imparted to us The adversaries of Tarnier and his principles were to be found among the older and younger obstetricians Many of them condemned his forceps, and condemn it still, partly without knowing what the matter in question is, though French, English and German physicians have tried to cultivate Tarnier's ideas, and the patterns have become more and more simple and serviceable The same fate befell the simple prophylaxis against *blennorrhœa neonatorum* An assistant who had been during several years in service, declared five years ago that he knew a clinic where no *blennorrhœa neonatorum* could be found, although the prophylaxis had not been introduced at that time Only the method of Porro found universal approval here

In spite of these adversaries, A R Simpson's axis traction forceps found here in Vienna a place where they were impartially tried When I first saw the forceps the delicateness of the blades and the spring like consistence of the material struck me A pair of forceps, devised especially for a head which is out of proportion or high lying, ought to have at least the same firmness and the same size as the common forceps The otherwise very simple construction of the axis-traction forceps, and the employment of the form of our "Schulzange" (by J Y Simpson) in the construction of it, induced Prof C Braun to allow experiments with it I operated (February 24, 1882) with A R Simpson's forceps the first time in his presence, and with very satisfactory result

Case —Prot No 536, 1882 The woman, 33 years old, III-para Outside, the forceps had been tried twice, without the child being extracted Flat pelvis, *conjugata vera* 8 cm The exhausted uterus was sunken to the right side The tympanitic percussion sound reached up to the linea alba Temperature and pulse normal The heart-beats of the child accelerated, the head fixed, its greatest circumference above the *conjugata* A large *caput succedaneum* The *os uteri* nearly fully dilated Disinfection, narcosis Alexander Simpson's axis traction forceps Easy operation with few tractions Moderate atony of the uterus and hæmorrhage, caused by the necrosis. Disinfection, massage, ergot.

---

[1] The recent patterns of Tarnier must be simple and good as Das seige has altered decidedly his opinion about this instrument

Child living, weight 3500 grm. Patient was discharged as usual on the eleventh day. The mother got pleuro-pneumonia without connection with the puerperium, and left the hospital healthy on the 17th of March.

Dr. Pritze and I operated with this instrument in six other cases. Four were small pelvis cases, head in all cases high up and fixed. In the two cases with normal pelves the children were large, the one (4270 grm.) profoundly asphyxiated, the reanimation was not successful, the other (4400 grm.) was born living. In two cases the extraction with A. Simpson's forceps was vainly attempted, so that craniotomy was done. In one case (normal pelvis, child 4270 grm.) the head was drawn with the axis traction forceps down to the perineum. At the exit of the head the instrument was about to slip off, so that the last part of the extraction was performed with C. Braun's forceps (J. Y. Simpson's forceps, obliterated fenestræ and handles, covered with hard rubber). In another case the button on the right traction rod was broken during the tractions, so that the operation was finished with the common forceps. Three children living, one asphyxiated, two still born (craniotomy). Three puerperia passed normally. Three women became ill with a light encolpitis, but were healthy when discharged.

These trials with A. Simpson's forceps and the complaints about their faults became apparently known in Edinburgh, so that someone had the extraordinary kindness to send me from there a much more solid instrument, for which kindness I now find the opportunity to express publicly my thanks.

The sixteen cases mentioned by A. R. Simpson in his paper on the axis-traction forceps include only two cases of narrow pelvis. Therefore it was not possible to try sufficiently the instrument in cases for which it had been devised, viz. on the high lying head. With a larger number of cases of narrow pelvis A. R. Simpson undoubtedly would have got the opinion that the forceps only sufficed for the lighter cases, but that it cannot cause the head to accommodate itself to the disproportion of the pelvis. He should have combined the axis traction apparatus with the forceps of J. Y. Simpson, as firmly constructed as the Viennese pattern ("Schulzange"). In this way he would have got a well constructed and reliable instrument.

The disadvantage of the fixation screw is usually exaggerated. Drawing the screw too close naturally causes damage, as well as the violent compression of the gaping handles of the common forceps, if they are adjusted to the high lying head. It is not necessary to mention that one must loosen the screw and the handles of the forceps during the pauses between the tractions, just as it is the rule in using any other forceps. The head recovers from the compression under otherwise favorable circumstances. The screw is only to effect the fixation of the forceps and not the compression of the head. It is therefore constantly controlled by the exploring hand, and is at first only slightly drawn.

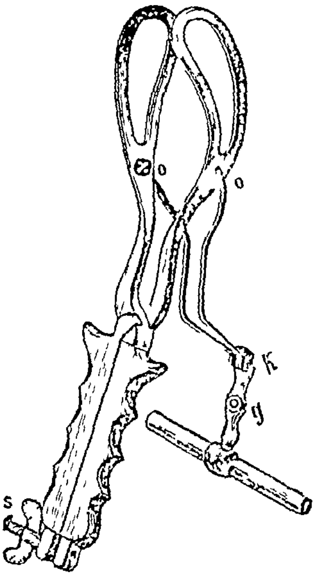
For the extraction with the axis traction forceps only one hand is required. If the power of one hand does not suffice for the traction, this shows, according to my experience, that there is such a disproportion that the operation with forceps cannot result favorably to mother and child. The successful traction with only one hand is the best proof that much power is spared in using the axis traction forceps in consequence of the proper direction of the traction. This is also the best affirmation and proof of the correctness of Tarnier's ideas. Even the most skilful operator, who best knows the pelvis, cannot estimate all factors which are called in question and often incessantly change (the narrowness and shape of the pelvis, the size, hardness, position and accommodation of the head). Therefore he cannot constantly draw his instrument in the axis of the pelvis. If we wish to follow the latter surely and avoid every injurious direction of the traction, we must resort to a pair of forceps which find so to speak, the shortest way through the pelvis by themselves, and which leave to the head the greatest liberty of movement during the tractions. By this circumstance the head attains in its progress through the pelvis a certain independence of the direction of the traction. This is attained in a different degree by the axis traction forceps, the name of which appropriately was changed by Breus[*] to "pelvic entrance forceps."

The usefulness of the axis traction forceps of Alexander Simpson for the extraction of the head fixed at the entrance of the pelvis was proved to me after the first trials to be sure, only by using a firmer and more safely constructed pattern. The traction contrivance was, on the contrary, for the pelvic-exit nothing but a disagreeable addition. Like Sanger with the forceps of Busch, I had the intention of transforming our firm, excellent "Schulzange" of J. Y. Simpson in such a manner that they would not be changed in their approved form for the pelvic-exit, but that they could be changed into an axis-traction forceps after A. Simpson's pattern by affixing the traction rods to them. In this manner they could afford also the advantages of the latter forceps.

Executing this intention I came, when I interrupted my clinical activity, only to the first pattern, after which several specimens were constructed by Leiter in Vienna. The adjoined diagram, taken from Leiter's catalogue, releases me from giving an exact description. The size and the proportion of the parts are perfectly equal to those of the forceps of J. Y. Simpson. It is important that the traction rods should only be made from one piece of steel. They have nowhere a soldering. If this be not the case, they would not accomplish their purpose, and would easily break at the operation, as it happened to me with the upper button of one traction rod. The fixation of the traction rod on the blade of the forceps by the simple metal button is on this first pattern still too loose and too unsteady. Also the curvature of the traction rods is unnecessarily strong and could be flatter as in Sanger's forceps. The joint of the traction-rods consists of two metal grooves, in which the two button-shaped ends of the traction-rods are attached This really very simple manner of forming the traction rods I should like to have changed in another pattern, perhaps by the contrivance of Tarnier, as it is brought in use again by Dr Neale Certainly this gives more firmness to the traction apparatus Also the endplate of Sanger's[3] instrument could perhaps be used, if one would correspondingly change the ends of the traction rods In short, it would be necessary to change much before one could advise the forceps for common use Therefore I omitted a description and added to the diagram in Leiter's catalogue a direction for use which may follow here literally in order to make the report complete

---

[*] C. Breus: Die Beckeneingangzangen. Wien. Toeplitz u. Deuticke. 1885.



FORCEPS AFTER SIMPSON, MODIFIED BY FELSENREICH

The axis traction forceps were constructed with the intention to give to every skilful obstetrician the possibility of using such an instrument on the high lying head, without requiring another forceps for the common cases The forceps consist of the common forceps of J Y Simpson, a compression apparatus *s*, two traction-rods, which can be attached at *o*, and a transverse handle grasping the traction rods at *k*, which is movable to the sides by a joint at *g*

DIRECTIONS FOR USE

1 One may use the forceps without compression and without traction-rods in the manner till now used for the head (face or vertex), being on the perineum or in the middle of the pelvis

2 If the head is high up, each blade is mounted with the proper traction rods, this is taken with the handle of the blade, and the blade is then applied After having applied the right blade one pushes its traction rod over the left handle Then the compressorium and the transverse handle is attached, with which one makes the test traction and the tractions themselves One follows in the direction of the tractions the movement of the solid handles and adheres closely to them

3 One must avoid a too strong compression of the head and must open the screw between each traction

4 This instrument does not extend the indication for the use of the forceps on the high-lying head One must be warned of using more power Generally the pull of one hand suffices

I operated with this instrument, which is, as I mentioned before, in many respects imperfect, in five cases, four times in cases of narrow pelves The shortest *conjugata vera* was 8 cm Three children were born living, two asphyxiated On child was reanimated and could be dismissed healthy on the tenth day The other died the day of the extraction in spite of reiterated trials of reanimation The weight of the children was 3350–3750 gram The puerperium of the five mothers (one primipara and four multiparæ) was in every way normal Four mothers were dismissed at the same time with their children

The number of the cases is small, but the results for mother and child very good The circumstance that the children were living shows certainly that the compression screw, if correctly used, is not dangerous The name compression screw is unluckily chosen, better is fixation-screw The use of the first name itself would cause a prejudice In spite of these favorable results for mother and child I cannot advise the instrument for common use Only a skilful and cautious operator will find the right measure in every respect, and the instrument requires a constant control The construction of the pelvic entrance forceps by Breus is simpler corresponding to its special purpose One can better advise this forceps for a common application Also, with this forceps, as with all similar instruments, the operator must moderate his powers very much The forceps is not constructed to overcome every obstruction caused by disproportion One can hurt mother and child with too much force applied in the right direction as in other cases, only perhaps in another place I have seen infraction of the parietal os on the head of the child after the use of a pelvic entrance forceps, because the forceps trial had been extended too far Every good thing turns, if used immoderately, to bad

The difference between the modifications of Felsenreich and Neale are not great, and certainly not essential By my communication, which would be otherwise useless, Dr Neale learns the advantages and faults of his and my instrument, so that he perhaps will be able to avoid the latter and to devise a pair of forceps which are proper both for the pelvic-entrance and the pelvic exit If he succeeds, then he has certainly fulfilled a want of the practical physician, for our instrumentarium scarcely allows an increase by a separate pelvic entrance forceps I would congratulate him with pleasure, and would be very glad that his sojourn at the University of Vienna should bear such beautiful fruit Dr Neale's industry and zeal for gynecology will always remain a very pleasant memory

Vienna, December 6, 1885

---

[3] Verhandlungen der gynecol Section der 55 Versammlung deutscher Naturforscher und Aerzte in Eisenach

INTUBATION OF THE GLOTTIS FOR MEMBRANOUS LARYNGITIS

BY E. FLETCHER INGALS, M.D.,

PROFESSOR OF LARYNGOLOGY IN RUSH MEDICAL COLLEGE, AND PROFESSOR OF DISEASES OF THE THROAT AND CHEST IN THE WOMAN'S MEDICAL COLLEGE, CHICAGO.

Considerable interest has recently been excited in the profession by reports of several cases in which tubage or intubation of the glottis through the natural passages has been practiced as a substitute for tracheotomy. We are indebted to the ingenuity and persistence of Dr. Joseph O'Dwyer, of New York, for the instruments with which this operation is performed, and for the first practical use of this novel procedure, though several before him have experimented in the same direction. We are further indebted to Dr. F. E. Waxham, of this city, for his enthusiasm in trying the new method, which has brought it fairly before the profession. With unusual modesty Dr. O'Dwyer seems to have experimented a long time before any outside of his immediate circle of acquaintances knew of his efforts, it being his desire to perfect the instrument before publishing his results.

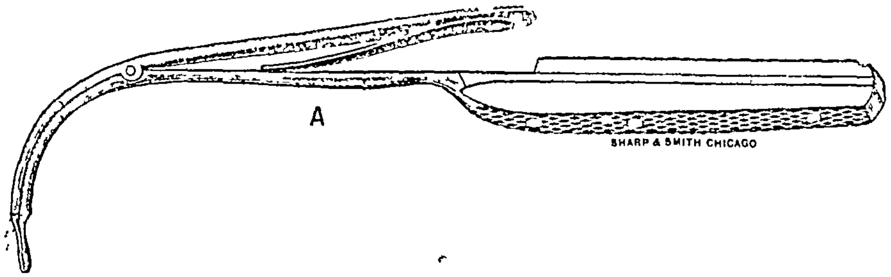
In April, 1885, Dr. Waxham procured a set of Dr. O'Dwyer's instruments, and he was so encouraged by his success that he has used them to the exclusion of tracheotomy until he has treated a number of cases by this method, eleven of which he has published. At the time of his last writing two cases had recovered and two others were apparently convalescent. His experiments demonstrate that there is a field of usefulness for the new operation, especially among very young children.

Recently Sharp & Smith, of this city, obtained for me a set of Dr. O'Dwyer's improved instruments, which I have used in two cases. The first of these was a child about two years of age, to whom I was called by Dr. A. M. Stout. The child had been suffering from diphtheria for several days, and when I saw it had passed into the third stage of diphtheritic laryngitis. There was lividity, constant dyspnœa, stridor and inspiratory retraction of the softer portions of the chest walls. As we could get no assistance, Dr. Stout held the child while I introduced the tube, which was done with little difficulty. After five or ten minutes breathing became easy, the patient seemed perfectly comfortable, and it soon fell into a natural sleep. The relief here was as great as would have been obtained by tracheotomy, and the subsequent course of the case was the same, in all probability, as it would have been if the trachea had been opened. Breathing continued easy for about thirty-six hours, then there was a gradual failure of the respiratory function. The child died easily about forty hours after the tube had been introduced. There had been no choking in the meantime. The tube was removed, after death, and found perfectly free.

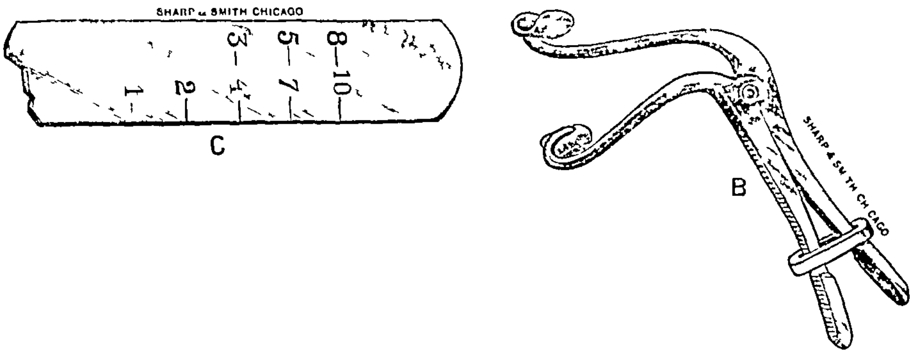
The second case was a strong boy about five and a half years of age. The parents had, two or three years previously, lost one child from membranous croup, and therefore were anxious to do all they could to save this one. The boy had been taken with croupy symptoms a day or two before I saw him. I found the eyes bright, the skin bathed in perspiration, cheeks, lips, and nails becoming livid, and recession of chest walls. The pulmonary signs were normal, and there was no evidence of diphtheria. Had the environments been good, I should have expected to save this patient by tracheotomy, but owing to the poor surroundings, and the certainty of poor nursing, we decided in favor of the new method. I accordingly introduced a tube, 2¼ inches long, such as is recommended by Dr. O'Dwyer for children of this age. The breathing was immediately relieved, and after about ten minutes became easy, though, owing to the small calibre of the tube, it was not so free as in health. At the time it seemed to me about seventy-five per cent. better than before the tube was introduced. Dr. Todd reports that for about twenty hours the patient was cheerful and breathing comparatively easy, but later the breathing became more rapid, numerous mucous râles were heard over the upper part of the chest, the pulse, which had been nearly normal, became feebler and more frequent, and matters grew steadily worse until the child died about thirty-nine hours after the tube had been introduced. Dr. Todd says, "I think that life was somewhat prolonged and the suffering considerably mitigated by the intubation." In the first of these cases the result was as good as I could have expected, but in the second I believe that a proper opening in the trachea would have greatly improved the child's chances if it could have been properly cared for after the operation.

I have seen reports of only five of Dr. O'Dwyer's cases, two of which, aged respectively 3¼ and 3½ years, recovered. It is too early to judge of the actual merits of this operation by the results in the few cases published, but they clearly demonstrate its practicability and no small degree of usefulness. I believe that for children under 3½ years of age it is preferable in nearly all cases to tracheotomy, but for older children the tubes thus far furnished are not large enough to admit a sufficient quantity of air, and therefore in severe cases life may often be lost when a timely tracheotomy would have been successful, but notwithstanding these objections, the ready consent to this operation where tracheotomy would not be allowed, the ease with which the tubes may be introduced, and the freedom from danger in the operation itself, render this procedure, as it seems to me, a most important advance in the treatment of diphtheritic laryngitis and membranous croup. Often parents would not consent to having the child "cut," as they express it, who would at once assent to this method. Often there are circumstances which induce or compel the physician to defer tracheotomy until it is too late, in which cases, if this method were employed, several hours might be gained, and then, if necessary, tracheotomy might be performed.

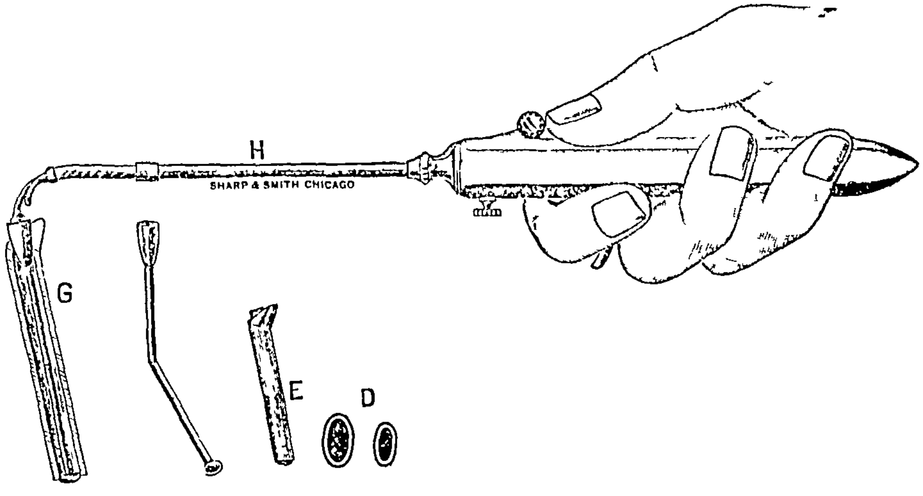
The ease with which the operation may be done will prompt its early adoption, and thus carbonic acid poisoning may often be avoided, and doubtless the extension of the disease thereby materially lessened. Again, many who might well hesitate to attempt tracheotomy need not hesitate to introduce one of these tubes, for with a knowledge of anatomy which all physicians are supposed to possess, and with reasonable care not to exercise too much force and to use due dispatch, no possible harm can come What though the tube were introduced several times into the œsophagus, it could be easily withdrawn by the attached thread, and it might finally be lodged in its proper place There appears to be very little danger of the tube slipping through the glottis, and even if it should it is so long (reaching, as it does, to within half an inch of the bifurcation of the trachea), that there would be no special danger from it, and if it could not be removed *per os* it might readily be extracted after tracheotomy



A—Extractor Half size



B—Gag Half size *C*—Gauge actual size excepting that the end is shown broken off The distance from the end of the tube to the line 10 is 2½ inches



E, F, G and H half size
H—Applicator screwed into the obturator, which is in the tube *G* ready for insertion The artist however has made a mistake and shown the tube *G* with its back edge in front. *E*—Smallest tube bulging on the sides at the middle *F*—Obturator *D*—Actual size of the opening in the largest and smallest tubes

Dr O'Dwyer's set of instruments contains a gag, five laryngeal tubes, an applicator, extractor, and a gauge The gag for keeping the mouth open is all that is needed for very young children, but it does not open quite wide enough for children over three or four years of age There are five laryngeal tubes, which range in length from 1¾ to 2½ inches The calibre of the largest and smallest of these is shown in the cut, and is seen to be only ⅛ × ¼ of an inch in the largest, and not more than half this capacity in the smallest Each tube has at its upper extremity an eye for the silk thread used when it is being introduced There are jointed obturators which fit each of these tubes and hold them while being introduced They are jointed in order that they may be more readily withdrawn when the tube is in the larynx The rounded lower extremity of the obturator is of a size and shape to perfectly close the opening in the tube, and prevent injury to the soft tissues during its introduction Its upper extremity has a small hole, into which the applicator is screwed when the instrument is ready for use The applicator is shown in the cut with the obturator partially screwed on The stem of this instrument is covered by a sliding tube which, when the laryngeal tube has been inserted, may be crowded forward by the thumb piece to release the obturator so that it may be withdrawn, and leave the tube in position The instrument for removing the tube is constructed on the principle of a dilator In using it the closed blades are passed into the end of the tube, the lever is then pressed down by the forefinger, when the opening blades impinge so firmly against the sides of the tube that it is held securely This has been found more convenient than the forceps which were first employed, and it has the additional advantage that it cannot injure the soft tissues The gauge is designed to determine the size of the tube to be used in a child of any given age

In performing the operation the child should be wrapped in a sheet or shawl, which will pinion the arms, and then held upright in the nurse's lap An assistant holds the child's head The gag is then introduced between the jaws, far back on the left side of the mouth, and opened as wide as need be, but not with great force The physician, sitting in front of the patient, passes his left index finger over the base of the tongue and down behind the epiglottis, and with it guides the end of the tube into the glottis

Dr O'Dwyer recommends that the handle of the applicator be held near the child's sternum until the end of the tube has reached the pharyngeal wall, but I think it will usually be found more convenient to hold it to one side The end of the tube having reached the pharyngeal wall, it is directed downwards and forwards along the index finger into the larynx This will not be found difficult, but the infant's epiglottis is so small and flaccid that the operator may not be able always to recognize it, though he will have no difficulty in detecting the larynx as a whole, which, except that it is slightly irregular, feels much like the end of one's little finger The operator should not expect to detect the opening of the glottis, but must be guided by his anatomical knowledge to pass the tube into the centre of the larynx Unless he is careful to carry the handle of his instrument high and thus bring the tube as far forward towards the base of the tongue as possible, the tube will be passed into the œsophagus While it is desirable to accomplish this portion of the operation as quickly as possible, it should not be done with too great haste Ten or twenty seconds, which is a long time for this portion of the operation, may be taken without danger If the tube is not then introduced it should be removed for a minute or two to allow the child to breathe, and then the operation may be repeated, but if the tube seems to be in the proper position, whether the operator is certain of it or not, the slide should be crowded forward so as to disengage the obturator, which is then withdrawn Some cough will occur at once, and if the tube has not been inserted into the larynx, or if it has not been passed down so that the rim rests on the vocal cords, it is likely to be expelled and may be seen or felt in the back part of the mouth If the tube has been properly inserted respiration will become easier in a few minutes The operator then cuts one end of the silk thread, passes his finger behind the epiglottis, and holds the tube while the thread is withdrawn Subsequently, if the tube be of sufficient size, the child may be expected to breathe easily, unless there be extension of the disease

There is little probability that the tube will become stopped by the secretions, but if the breathing again becomes obstructed the tube must be removed and examined Unfortunately, the tube is sometimes expelled by violent cough, and in cases which the physician cannot closely watch lives may be lost by this method which could have been saved by tracheotomy

The tube may remain in the larynx as long as necessary to secure perfect respiration, as it causes little if any irritation There are few cases of membranous croup in which the glottis will be free in less than four or five days, and it is not uncommon for the obstruction to remain ten or twelve days Therefore, if no unfavorable symptoms arise, I would advise that the tube be left four or five days before removal, then if dyspnœa supervenes, it must be re introduced, and it may have to remain ten or twelve days No anæsthetic will be needed for the introduction of the tube, but one will occasionally be required for its removal

Looking at the intubation of the glottis from our present standpoint, it seems well adapted for the following cases

1 For diphtheritic and croupous stenosis of the larynx occurring in children under 3½ years of age
2 For cases of these same affections in older children in which from any cause the physician wishes to defer the operation of tracheotomy
3 For those cases in which consent to tracheotomy cannot be obtained
4 For those cases in which proper nursing could not be secured
5 For severe cases of spasmodic croup in children less than 10 years of age
6 For simple stenosis of the larynx not diphtheritic, in children
7 With proper sized tubes it might be of value in the treatment of various forms of laryngeal stenosis in adults

I have no hesitation in saying that Dr O'Dwyer's instruments for this operation are far preferable to any of the numerous instruments for rapid tracheotomy I can see no good reason why the tubes for older children may not be made much larger than they now are, and if this be practicable the greatest objection to this operation will be removed; however, there will be cases in which the tube may be coughed out, and in which, if the physician leaves the patient, the child may strangle before he can be found to return the tube In such cases the physician would sometimes be culpable for not having done tracheotomy, and thus insured an opening for respiration

The ease with which this method can be carried out will doubtless secure its adoption in a large number of cases in which tracheotomy would not be advised, and thus it may be the direct cause of saving many lives On the other hand, we must not forget that these very features are a source of danger, leading the physician to rely on this method in cases in which nothing less than tracheotomy could be of any avail, and thus many lives may be lost I believe, however, that the method will do much more good than harm, and that within a few years it will find its proper place among the agencies for relieving suffering and prolonging human life Even now I have such confidence in the operation that I think every community should have a set of these or similar instruments in the hands of some physician who has the good judgment to know when to use it

64 State St , Chicago, January 27, 1886

HABITUAL CONSTIPATION IN WOMEN—ITS CAUSES AND EFFECTS[1]

BY H J HARRIMAN, A M , M D ,

OF REVERE MASS

One of the most frequent and obstinate troubles that the general practitioner is called upon to treat is habitual constipation Even the large number of cases that are thus brought into notice are but a small part of those suffering from this cause, since a strange and unconquerable indifference to such a state keeps away all except those who are compelled to seek advice on account of other trouble, possibly the result of this state of the lower bowel So frequently is this state associated with pelvic trouble, that the question naturally arises as to what relation habitual constipation has to the diseases peculiar to women To inquire into this relation and excite discussion on this practical question is the object of this paper With constipation, considered as a symptom, the medical profession are fully acquainted, but of constipation as a disease *per se*, which may be the predisposing if not the exciting cause of more serious trouble, they are inclined to be skeptical

Is this state a *cause*, an *effect*, or simply an *accompanying circumstance* of pelvic trouble? It seems to the writer that its relation is that of a cause, and it will be so treated The physiological functions of the body are wonderfully interdependent Not one can fail to act in its normal way without influencing, either directly or indirectly, the action of every other This influence may be exerted through the general system, through a reflex nervous influence, or mechanically In the case of failure to empty the lower bowel with normal frequency, we find the pernicious influences of such a state exerted in each of these three ways

Of the constitutional effects of such a state malnutrition and spanæmia are generally prominent This is readily understood when we consider the function, or rather the perversion of function of the lower bowel The colon, especially the sigmoid flexure, is intended to act as a depot for the retention of fæces until it is convenient that they be discharged Normally its absorbing power is limited Its excretion consists of mucus and some odoriferous elements of the fæces When, however, the excrement is retained for days, and it may be for weeks, the functions of this organ are so perverted as to give rise to pathological processes The fluid elements are absorbed into the circulation to be excreted by the other emunctories of the body, noxious gases are generated and reabsorbed, and there is created what might be called a vicious circle by the excretion and reabsorption of these noxious elements An idea of the extent to which absorption goes on can be gained by comparing the bulk of fæces when a daily evacuation is gained, and the bulk when the bowels move but once or twice a week In the latter case the amount is not greater than in the former

The effects of such a state can be seen in the slow toxæmia which exerts a benumbing influence on the nervous system and depresses every function in the body Many of the low, nervous manifestations which are usually characterized as reflex are due to this poisoned state of the blood The strength fails, the appetite diminishes and the tongue is foul, there is more or less constant headache, a want of mental power, a constant drowsiness unrelieved by sleep, and fatigue upon the slightest exertion Sleep is not refreshing but is disturbed by dreams and nightmares The extremities are cold Hypochondria and mental depression are common

This state of the general health opens wide the door to all local troubles in the active organs of generation The muscles and ligaments lose their tone and yield readily to such injurious influences as tight lacing, heavy clothing, and indiscretions at menstrual periods The circulation is slow and imperfect owing to the defective performance of the functions of the heart and lungs, and ovulation and menstruation, which nature intended should be painless processes, become sources of anxiety and distress Nearly all writers on diseases of women agree that flexions and versions of the uterus may be due, in part at least, to habitual constipation In anterior displacements the primary influence of fæcal accumulation may be mechanical, whereby the uterus is forced forward upon the bladder, giving rise to troublesome bladder symptoms In posterior displacements and prolapsus the mechanical influence is of minor importance, but the evil is chiefly due to pressure from muscular action while straining at stool

Thomas says "Fæcal impaction may possibly produce flexion of the body and frequently causes the cervix to bend sharply forward " Speaking of cervical flexion he says "It is generally produced by pressure directly exerted upon the uterus by tight clothing, which forces it against the concave surface of the vagina This surface gives the impinging part a slant forward and keeps it thus bent Habitual constipation increases this vicious curve, and the two causes combined often result in an unmanageable form of the affection "

Fæcal impaction may cause, or at least aggravate, menorrhagia and metrorrhagia by interfering with the portal circulation and producing congestion of the pelvic viscera. The author last quoted says: "My experience has furnished me with a number of cases in which fæcal impaction produced prolonged metrorrhagia which was cured by its removal."

---

[1] Read before the Gynecological Society of Boston November 22 1885

Leucorrhœa may be due to the same cause acting in the manner just stated.

It is no easy matter to discriminate closely between the nervous symptoms due to the constitutional influences of such a state, and those due simply to reflex influences. Vaso motor disturbances are very frequent. Variations of temperature have also been noticed. Gastralgia, ovarian neuralgia together with various hysterical manifestations, are often the result of a loaded colon and cured by its relief.

Some of the pernicious influences of habitual constipation seem to be due to a mechanical influence simply, as has already been stated. When the sigmoid flexure and rectum are loaded and distended the uterus is crowded forwards and dysuria results. The soft and pliable uterus of girlhood may be forced into abnormal positions and forms necessitating surgical interference. In rare cases the transverse colon has become so loaded as to be dragged from its attachments. It then descends toward the pelvis and thus increases the pressure on the organs of generation.

The causes of this unfortunate condition are not far to seek. The most of them are so well known as to render their repetition unnecessary. John Burne, writing in 1840, said that constipation was due more to indifference to the act of defecation than to any other cause. The experience of the profession to day will, I think, verify this opinion. This cause, together with false modesty, indolent habits, vicious styles of dress and ignorance of hygiene are fully appreciated by medical men. There are, however, in addition to these, certain causes arising from the anatomical structure and physiological functions of women which render them peculiarly liable to troubles of this nature. At every menstrual period the uterus and ovaries are enlarged and tender, and press, to a greater or lesser extent, upon the rectum. The act of defecation produces pressure upon these sensitive organs and renders the act a painful one, and thus leads to neglect of this function. It is said that constipation is more prevalent in this country than in England on account of the fact that our comparatively dry climate favors the removal of the fluids of the body by evaporation, and thus diminishes the volume of excrementitious matter. However this may be, we know that a withdrawal of the fluid elements of the blood tends to foster if not to produce this condition. This is shown by the influence which lactation exerts whereby defecation is diminished in frequency.

The influences of frequently recurring pregnancies are unfortunate. During gestation the uterus presses upon the colon and sigmoid flexure and interferes with their normal action. The extreme stretching of the abdominal muscles weakens them, and thus renders almost useless these important auxiliaries in emptying the lower bowel. In some cases where many children are borne, the abdominal muscles may become so relaxed that the impregnated uterus may form a pendulous mass in front of the *os pubis*. The great pressure to which the rectum and colon are subjected during labor exerts a paralyzing influence upon the muscle of the bowel. In addition to this, the relaxed state of the pelvic viscera following labor offers a diminished resistance to the great distension of the lower bowel which is so often discovered in cases of long standing constipation.

The nervous state at the climacteric, with its fugitive abdominal pains, and state of apprehension, causes women to dread and avoid any act which may seem to increase their distress. This leads them to neglect entirely or to slight the function of defecation.

Such are some of the causes and effects of this common trouble. It has seemed to the writer that in these days when local treatment of the uterus, both medical and surgical, is so popular, the attention of the profession might with advantage be directed to this state, and that more careful attention to the condition of the *primæ viæ* and general health would render the success of local treatment more certain and satisfactory.

MEDICAL PROGRESS.

The Treatment of Congenital Syphilis by the Older and Newer Methods.—Professor Monti, of Vienna, contributes a valuable paper on this subject to the *Archiv für Kinderheilkunde*, Band vi., Heft 1. Of treatment by inunction, the oldest is that in which blue ointment is employed. It is still largely used; but the objection to it is that it oxidizes too readily in this form, and is then apt to produce eczema. Oleate of mercury is extensively used instead of the blue ointment; and mercurial plasters have been substituted by some, while Charcot, recommends mercurial soap. All those compounds are, however, more or less unsuited to the tender skin of infants, the least objectionable being the oleate of mercury. Dr Monti has, however, had no personal experience of the soap. Moreover inunction involves considerable risk of the system rapidly absorbing an excessive quantity of the drug, and in the case of very young infants this leads to acute anæmia. He has also come to the conclusion that the sudden death, which is not an uncommon incident in hereditary syphilis, occurs with far greater frequency where this has been treated by inunction. For these reasons, he has for some years ceased to use it in the case of children under one year. The next treatment under review is that by calomel. This also has a tendency to produce anæmia, and should, therefore, be given as a powder in combination with lactate of iron. This should be discontinued when the first symptoms have disappeared, and saccharated iodide of iron substituted until the spleen is no longer felt or the skin has resumed its normal color; but should the disease reappear in the skin, mucous membrane, or bones, calomel must again be resorted to. In some rare cases, such as those where there is great irritability of the intestinal tract, a subcutaneous injection of a freshly prepared mixture of calomel suspended in mucilage may be administered.

The treatment by corrosive sublimate gives very satisfactory results, provided it be not to long continued, in which case symptoms of gastric irritation will supervene This drug is also administered in the form of a bath, which should contain about seven grains, but in the writer's experience, their effect upon the disease is very slow, and should therefore be accompanied by calomel internally and in that way they appear to hasten the cure The best mode of giving corrosive sublimate is by subcutaneous injection The solution should consist of perchloride of mercury gr jss, chlorate of soda gr vj, and water 150 grains, and of this one half to one syringeful should be used every day or every other day until the symptoms disappear, to be renewed upon their return The punctures are best made upon the abdomen or chest, and must not be too close together

The injection is in general well borne, and, according to Dr Monti's experience, never produces mercurialism, and causes very little loss of flesh It cannot be denied, however, that infants do not bear these injections so well as adults, even with the greatest care, it is not uncommon to find induration of the cellular tissue and abscesses at the seats of puncture It is also not suitable for out patients, because the mothers decline to bring the children after the first few times Notwithstanding that the symptoms subside more rapidly under this treatment than under any other, the author has of late confined its use to cases that would not bear mercury internally

Albuminate of mercury, as recommended by Bamberger, is preferable for hypodermic use to corrosive sublimate, provided the solution be clear, but it is excessively unstable, and, if used in a cloudy state, produces irritation and abscesses Much the same objection applies to mercury peptone, though it is rather more stable Formamide of mercury (Liebreich) is unsuited to children Protiodide of mercury produces excellent results, especially when combined in a powder with lactate of iron, and perhaps no other remedy acts so promptly upon syphilitic affections of the bones Unfortunately, it produces diarrhœa and colic, and the addition of Dover's powder to the above compound soon ceases to have any effect Consequently, Dr Monti only gives it in cases where bone-affections exist from the beginning Black oxide of mercury, as recommended by Henoch, was found to produce vomiting, and was therefore soon given up The author has had only a limited experience of hydrargyrum tannicum oxydulatum (Ludwig), but is favorably impressed by it, more especially because it does not appear to affect the digestive organs It is now a recognised fact, that hereditary syphilis can be cured by preparations of iodine as well as, though more slowly than, by mercury It may be given as iodide of potassium, to which, however, there are on the whole insuperable objections, or as saccharated iodide of iron The treatment of syphilis with this drug was favorably commented upon by the author in a paper on the subject in 1876, and his subsequent experience of it has confirmed this predilection It is borne well by children of any age, improves their nutrition, and never produces iodism, but it is much slower in its action than mercury, and is therefore best suited for very chronic cases It should be given as a powder, for, if the syrup be used, it is apt to produce diarrhœa Three grains may be divided into ten powders, and a new-born child may have two or three daily, dissolved in milk —*London Medical Record*, January 15, 1886

THE TREATMENT OF PROFUSE HÆMOPTYSIS —In an article on this subject, read before the Medical Society of London, DR SAMUEL WEST gives the following summary of the principles of treatment

1 *Rest* (*a*) of body generally, (*b*) of part diseased Many of the indications under this heading will be met by the use of opium

2 *Hæmostatics* —(1) The topical astringents, (2) the vascular constringents Topical astringents cannot be applied to the bleeding part of the lung, and if they act at all, it must only be as vascular constringents

The belief as to the use of the vascular constringents in pulmonary hæmorrhage is probably based upon an incorrect theory of the pathology, and reasons have been given why they can be expected to do but little, if any, good Ergot was probably introduced on account of its efficiency in controlling uterine hæmorrhage, but it is shown that the necessary conditions for its action do not exist in the lungs unless their action be by vascular constriction, and this is probably ineffectual

As the risk of death in profuse hæmoptysis is not so much from loss of blood as from suffocation, and as profuse hæmorrhage tends to bring about of itself the conditions most favorable to its cessation, an attempt may be made to imitate these conditions in treatment When a vessel is divided hæmorrhage ceases (1) from contraction of the vessel, (2) from clotting of the blood, aided by the great fall in blood pressure which severe hæmorrhage induces

1 *Contraction of the Bleeding-Vessel* —The vessel is so diseased in hæmoptysis, that its muscular coat can no longer act at the diseased spot, and therefore this condition cannot be fulfilled

2 *Clotting of the Blood* —There is, so far as I am aware, no drug which, by internal administration, can increase the clothing power of the blood

The effect upon the blood pressure can be imitated in various ways

1 By free blood-letting from artery or vein This old-fashioned method of treatment is as rational in cases of suffocative hæmoptysis as in apoplexy, for in both cases the risk to life is not from the loss of blood, but from the mechanical effects of the hæmoptysis upon the organ involved

2 If blood-letting be inapplicable, the same end may be aimed at by detaining the blood in some part of the body other than the part diseased, (*a*) for example, mechanically, as by the use of Junod's boot, or free dry cupping, (*b*) or by dilating some of the great vascular systems of the body, and making them act as temporary reservoirs for the blood, (*a*) the abdominal system (purgation), the cutaneous system, counter-irritation, possibly pilocarpin, or even nitrite of amyl These two drugs dilate the vessels throughout the whole body, and might possibly be of great

service Some objections in theory to their action have been considered

3 The blood pressure may be further influenced through the heart (*a*) by means of the cardiac depressants, of which antimony is the most reliable, (*b*) by the nauseating emetics, though their action upon the heart is probably only a part of a more general action Of the emetics, ipecacuanha was much used by Trousseau

4 Lastly, dieting is of great importance The principle of absolute rest and restricted diet, which is the essence of Tufnell's treatment for aneurism of the thorax and abdomen, is equally applicable and useful in pulmonary hæmoptysis

Instead of giving a long list of drugs, or discussing in detail the various methods of treatment of hæmoptysis, I have endeavored in this paper to ascertain the conditions which have to be fulfilled, and to indicate the essential principles which should guide our choice of remedies I have purposely avoided speaking of my own experience, desiring rather to elicit that of others, and although some, of the lines of treatment are, it is true, open to the objection that they are so far speculations, still it cannot be denied that our present treatment of hæmoptysis is far from satisfactory, and perhaps, from the nature of things, may be doomed to continue so Speculation may, perhaps, suggest lines of treatment which experiment may follow out, and of the value of which observation alone is the true test —*British Medical Journal*, January 16, 1886

New Procedure for the Removal of Small Calculi from the Bladder —Mr Thomas Annandale reports the following case in which he adopted a new procedure for removing small vesical calculi from male children A boy, aged 4¼, was sent to me on account of symptoms of stone in the bladder which had existed for about a year The usual symptoms were present and well marked, and, upon sounding him, I detected a small and light stone

On December 10, I put him under the influence of chloroform, and dilated urethra by passing Nos 6, 7, 8 and 9 silver catheters in succession The first three passed readily, but No 9 was slightly grasped in its passage along the urethra Before removing this last catheter, four ounces of antiseptic fluid (corrosive sublimate 1 to 4,000) were injected through it into the bladder This catheter being withdrawn, a small lithotrite, having a diameter about equal to a No 8 bougie, was introduced along the urethra into the bladder After a little careful manipulation, the stone was seized, and fixed between the blades of the instrument It was then found that, by depressing the handle of the lithotrite, its vesical extremity, together with the stone, could be readily felt through the abdominal wall immediately above the pubes The lithotrite being held in this position, a small incision, an inch in length, was made in the middle line of the abdominal wall over the pubes, and for a short distance above it The various tissues were divided, until the wall of the bladder was exposed at the point against which the blades of the lithotrite and the enclosed stone were pressing A little further depression of the handle of the lithotrite caused the extremity of its blades covered by the stretched wall of the bladder to protrude through the wound in the abdominal wall, and a small incision having been made through the wall of the bladder by cutting upon the extremity of the lithotrite, the blades of the lithotrite, together with the stone, were pushed through the wound The stone was here extracted from between the blades of the lithotrite, and the open extremity of a No 7 India rubber catheter was seized, and drawn into the bladder and along the urethra as the lithotrite was removed, thus leaving a drain for the urine to escape from the bladder The wound in the abdominal wall was closed by means of two horse-hair stitches, and a drainage tube introduced into it so as to aid the escape of any urine which might flow from the bladder wound Irrigation with corrosive sublimate solution (1 to 2,000) was employed during the operation, and the wound and parts around were covered with a dressing of corrosive sublimate wool The stone removed was about the size of horse bean, of uric acid formation For the first thirty six hours after the operation, the urine was slightly tinged with blood, passed principally by the abdominal wound, but after this, it flowed through the catheter, which had been secured in the bladder

Forty eight hours after the operation both drainage-tube and catheter were removed, the patient not having had the slightest bad symptoms For twelve hours after the removal of the drainage-tube and catheter, the urine came by the abdominal wound, but, after this, it passed almost entirely by the urethra, and the patient was running about the ward, perfectly well, on the tenth day after the operation

It may be said that this is simply a suprapubic lithotomy, and so it is, but I maintain that it is a much less serious proceeding than the ordinary suprapubic operation, as the bladder is scarcely disturbed, and the wound made in it is very limited Its advantages over lateral lithotomy are 1 That the urethra, prostate, and neck of the bladder are left uninjured, 2 That it is a much more simple proceeding, and does away with the principal risks which have occasionally been encountered in performing the operation on children

I confess that it requires a little manipulative dexterity to seize a small stone in a male child's bladder, but no greater dexterity is required in doing so than what every surgeon, professing to be an operating surgeon should possess

It is possible that in certain cases the same principle might be carried out, by bringing the stone to the neck of the bladder, opening the prostatic part of the urethra, and thrusting the blades of the lithotrite and contained stone into the perineal wound, but in the case of children there can, I think, be no doubt that the suprapubic method is preferable —*British Medical Journal*, January 2, 1886

New Operation for the Alleviation of Persistent Deafness —Dr William H Bates, of New York, in an article on this subject says that many cases of deafness are not benefited by thorough catarrhal treatment, inflation of the middle ear, the use of Siegle's otoscope, an artificial opening in the drum membrane, division of the tensor tympani, etc He calls attention to an operation which has benefited a number of these obstinate cases The operation consisted in puncturing or incising the drum-membrane in from five to ten different places Simple punctures were made, or the drum membrane was slit in various directions The operation was repeated as soon as the openings in the drum-membrane had healed The size and freedom of the incisions must be determined after the first operation for each case

For the operation he employed a Graefe cataract-knife with a long shank It is important that the knife be *sharp*, and to make this certain he often used a freshly sharpened knife for each puncture Pain was avoided by this precaution A dull knife, or the paracentesis instruments sold in the shops, caused more pain than the patients could bear

Cocaine was not necessary when the knife blade was in proper condition, and this remedy would not prevent pain when the knife was dull

The result of this operation is to leave a number of cicatrices in the drum-membrane, the subsequent contraction of these producing a tension by which the membrane is drawn out The membrane frees itself from adhesions in this manner, and in many cases loosens the anchylosed ossicles The various benefits of paracentesis, as formerly employed, are not only obtained but much increased It is not an improvement the result of a perforation of the drum membrane alone which, as is well known, is often doubtful and transitory, but the subsequent healing of the openings is part of an improving process The operation, suggested by that of paracentesis, differs from it in the simultaneous number and extent of the incisions, as well as in the purpose for which it is resorted to, and in the immediate and subsequent results —*New York Medical Record*, January 23, 1886

THE INFLUENCE OF ALCOHOL AND OF MORPHINE ON PHYSIOLOGICAL OXIDATION has been studied by Sumanowsky and Schoumoff Adopting Sieber and Nencki's suggestion, the oxidation of ingested benzol to phenol was taken as a measure of the systemic oxidation The elimination of phenol lasts from two to four days In the case of a dog which normally excreted 0 283 to 0 248 gramme of phenol for every gramme of benzol ingested, the administration of 0 3 gramme of alcohol per kilogramme of body weight reduced to the elimination to 0 165 gramme, while an increase in the alcohol to 3 01 grammes per kilogramme reduced the phenol eliminated to 0 125 gramme On the other hand, the administration of 0 02 gramme of morphine hydrochlorate per kilogramme increased the phenol to 0 309 gramme In a man, aged 27, two grammes of alcohol per kilogramme of body-weight reduced the elimination of phenol, after the ingestion of two grammes of benzol, from 0 82 to 0 33 gramme The morphine therefore seems to increase the oxidizing powers of the system, while alcohol correspondingly decreases them The quantity of urea excreted appears also to be diminished by alcohol, although the excretion of urea cannot be taken as a measure of organic oxidation Diminished oxidation, produced by constriction of the air-passages, which increases the elimination of urea, lessens the amount of benzol oxidized to phenol in the system In none of these cases, it may be said, could more than traces of the alcohol ingested be discovered in the urine —*London Medical Record*, January 15, 1886

THE PREVENTION OF MYOPIA IN SCHOOL CHILDREN —It is now tolerably well established that shortsightedness is developed and increased in a certain direct relation to the amount of school-work done by children For the prevention of myopia, Fuchs, of Liège, in a prize essay, quoted in the *Birmingham Medical Review*, gives the following directions First in importance is the arrangement and lighting of the schoolroom

"The principal windows in England should look to the south or south east The long axis of the room should run north and south Every scholar should, from his place, be able to see some portion of the sky Light from above is the best, and, except in hot climates, glass roofs are very advantageous The chief light must come from the scholar's left side The height of the top of the window from the floor should not be less than two thirds the width of the room The total window surface should bear to the area of the floor a proportion of at least 1 to 5 In artificial lighting by gas, every burner must have a glass chimney and a shade, the latter arranged to reflect the light down upon the desk, and to screen the scholar's eyes There should be about one burner to every four scholars "

It is most important that the eyes should not be approximated too closely to the book The proper position is that in which the shoulders and pelvis are parallel with the edge of the desk, and the head upright or bent but slightly forward As to the construction of desks and seats, there must be several sizes, to suit scholars of various ages, the distance between seat and desk, in the vertical direction, must be but little greater than the distance between the elbow and the ischial tuberosity The edge of the desk must overhang the seat about two inches, the scholar can then sit upright The surface of the desk must slope about 1 in 5, to obviate the bending forward of the head, and the breadth should not be less than 15½ to 16 inches All stooping should be avoided, and the types used must be perfectly legible —*British Medical Journal*, January 16, 1886

SPARTEINE IN HEART DISEASE —PROF GERMAIN SEE has recently subjected Laborde's deductions from experiments to the test of clinical trials, the patients being two persons with degeneration of the cardiac muscle, one with mitral stenosis, one with mitral insufficiency, one with aortic stenosis, and one with cardiac asthma and albuminuria From the action of the drug in these cases he concludes that sparteine sustains the action of the heart, improves its rhythm, and accelerates its movements —*N Y Med Journ*, January 2, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE	$5.00
SINGLE COPIES	10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, FEBRUARY 6, 1886.

THE DIVISION IN THE PROFESSION OF NEW YORK STATE ON CODES OF ETHICS—ITS BEARING ON THE INTERNATIONAL CONGRESS DIFFICULTY.

It has been asserted that much of the trouble with regard to the organization of the International Medical Congress has been due to dissensions, which have existed and which now exist in the profession in the State of New York, and it is assumed by some that these dissensions are little more than a local quarrel, having no proper relation to the profession at large or to the proposed organization of the Congress. Although the profession of the State of New York is certainly divided in opinion on the question of medical ethics, the quarrel—if one have existed—has long since disappeared from public view. That there actually is a division of the profession in New York is shown by the existence of two distinct State medical organizations. The Medical Society of the State of New York, organized by act of Legislature in 1806, in its volume of "Transactions" for 1884 showed a total active membership of 392. In 1882, this Society repealed the Code of Ethics of the American Medical Association. In 1884 the New York State Medical Association was founded as a voluntary organization. In its volume of Transactions for 1884, the Association showed a total active membership of 514. This Association adopted the Code of Ethics of the American Medical Association as a fundamental part of its organization.

Inasmuch as the condition of the profession in the State of New York is supposed by some to have a bearing upon the organization of the International Medical Congress, it is of interest to the profession at large to know, if possible, the exact status of the two parties into which the regular profession is said to be divided. The New York State Medical Association is in affiliation with the American Medical Association, and with the regular profession of the United States. The Medical Society of the State of New York is no longer in affiliation with the American Medical Association, for the reason that it does not accept the Code of Ethics of the Association. So far as the so called division of the profession in the State of New York is concerned, we shall give to our readers the facts as they appear in publications readily accessible, with no expression of opinion upon the questions involved. If these facts have any proper relation to the organization of the International Medical Congress, this will appear without argument; and certainly the profession of this country and of other countries should be made acquainted, as nearly as possible, with the exact condition of the profession with regard to medical ethics.

The provision of the Code of Ethics of the American Medical Association, which constituted the main subject of discussion in New York, refers to consultations and is embodied in the following:

"But no one can be considered as a regular practitioner or as a fit associate in consultation, whose practice is based on an exclusive dogma to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

In 1882, by the two thirds vote required, the Medical Society of the State of New York repealed the Code containing this provision, and adopted the so called "New Code," which has the following provision with regard to consultation:

"Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine." (The phrase "legally qualified practitioners of medicine" introduced here we will continue to use throughout this article, although there is no law in this country establishing a *legal standard* of *qualifications for practitioners* of *medicine* in the same sense as in the countries of Europe. With very few exceptions, our laws regulating the practice of medicine are practically simply registration laws, requiring all sorts of practitioners, *regular* and *irregular*, to register their credentials in the clerk's office of the county in which they practice and obtain a license which gives them authority to practice, without furnishing any proof that they have either adequate scientific or professional attainments for the practice of medicine.) The "New Code" was adopted in the Medical Society of the State of New York by a vote of 52 to 18, 70 members being present and voting. In 1884, an effort to repeal the "New Code" and to reestablish the Code of the American Medical Association was defeated by a vote of 123 to 105, 228 members being present and voting.

The exact status of "legally qualified practitioners of medicine" with whom "members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith" are now permitted to consult, and with whom many so called regular physicians in the State of New York do now freely consult, was fixed in 1880, nearly two years before the adoption of the "New Code,' by an act of Legislature entitled "An Act to Regulate the Licensing of Physicians and Surgeons." It may be assumed that those who advocated the adoption of the "New Code" were aware of the character of certain practitioners with whom consultations were permitted under the "New Code," inasmuch as certain of the advocates of the "New Code" were active in preparing the bill under which practitioners are now registered in the State of New York. In 1883, Messrs. Caswell, Hazard & Co., druggists, of New York City, printed and distributed a list of "Registered Physicians in the County of New York, compiled and alphabetically arranged from the official list in the office of the County Clerk, to January 14, 1881, revised to January 1, 1883." This list, with the report of the Illinois State Board of Health on "Medical Education and Medical Colleges in the United States and Canada, 1765–1885," giving the standing of the medical colleges of the United States, and the "Medical Register of New York, New Jersey and Connecticut," for 1883–84, has been used in the following analysis. The "Medical Register" is supposed to contain the names of all legally qualified regular physicians in the County of New York. The number of such physicians in the "Register" of 1883–4 was 1,661. The register in the office of the county clerk contains not only the names of the regular physicians who are named in the "Medical Register," but the names of all "legally qualified practitioners of medicine."

An analysis of the county clerk's register shows the following: 388 irregular practitioners are registered. Of this number, 38 are graduates of regular medical colleges, but are members of the "Homœopathic Society of the County of New York," while 350 are graduates of irregular medical colleges. The following colleges are the irregular institutions named in the register. Notes of the status of each college, where this is not plainly indicated by the title of the institution, are copied from the report of the Illinois State Board of Health on the medical colleges in the United States, 1765–1885.

1. Eclectic Medical College, New York. 2. Syracuse Medical College (Eclectic). "Organized 1849, extinct, 1855." 3. United States Medical College, New York (Eclectic). "Organized in 1878, in a manner that has since been declared illegal by the State Supreme Court. Extinct since 1882." 4. Philadelphia University of Medicine and Surgery (Eclectic). "Incorporated in 1859. Fraudulent. The sale of diplomas was stopped by legal process, and the arrest of Miller and others in 1880." 5. Eclectic Medical College, Cincinnati, Ohio. 6. Bennett College of Eclectic Medicine and Surgery, Chicago, Illinois. 7. New York Medical College for Women (Homœopathic). 8. Homœopathic Medical College, New York. 9. Hahnemann Medical College, Philadelphia, Pennsylvania. 10. Worthington Medical College, Ohio, afterward the Eclectic Medical Institute. 11. Metropolitan Medical College, New York (Eclectic). "Organized in 1852, incorporated March, 1857. Charter repealed April 12, 1862." 12. Hygieo Therapeutic College, New York. "Extinct." 13. Homœopathic Medical College, Cleveland, Ohio, and Western Homœopathic Medical College, afterward consolidated under the name of the Homœopathic Hospital College. 14. Eclectic Medical College of Pennsylvania. 15. Electro Therapeutic Institute of Philadelphia. 16. St. Louis Eclectic Medical College. "Organized in 1874—extinct in 1883. Closed by legal process." 17. Hahnemann Medical College, St. Louis, Missouri. 18. Massachusetts Medical College. No information. 19. Homœopathic Medical College, Leipsic. No information. 20. Physio-Medical College, Cincinnati, Ohio. "Organized in 1836, graduated classes until 1880. Extinct." 21. American Institute of Phrenology. No information. 22. Germantown Medical College, District of Columbia. No information. 23. Hudson University, Cleveland, Ohio. No information. 24. Mexican Homœopathic Institute. No information. 25. Ohio Botanic Medical College. No information. 26. New England Female Medical College, Boston, Massachusetts (Homœopathic). 27. Penn University, Philadelphia, Pennsylvania. "Fraudulent. Extinct." 28. New York State Homœopathic Medical College. No information. 29. American University of Philadelphia. "Incorporated in 1867. Fraudulent. Extinct. The sale of diplomas was stopped by legal process, and the arrest of Buchanan in 1880." 30. American Medical College of St. Louis (Eclectic).

31 Pulte Medical College, Cincinnati, Ohio (Homœopathic) 32 New York Ophthalmic Medical College No information 33 License by Professor Pfeiffer No information

If it be assumed that the profession of the State of New York is divided into two classes, these classes may properly be defined—at least so far as can be judged from what has been published regarding the troubles in New York—as one, composed of members of the Medical Society of the State of New York, and others, who sympathize with the so called New Code of Ethics, and the second, composed of Fellows of the New York State Medical Association, and others, who adhere to the Code of Ethics of the American Medical Association The "New Code" party admits the propriety of professional recognition of and of free consultation with the 388 practitioners, legally qualified to practice, but generally regarded as irregular, registered according to law, and with irregular practitioners registered in other counties The "National Code" party refuses professional recognition of and consultation with any but regular physicians in good standing

The questions which have divided the profession of New York—which seem to be not without interest and importance to the profession at large—were brought indirectly before the meeting of the American Medical Association in 1885, following the publication of the rules and preliminary organization of the Ninth International Medical Congress, by what is known as the Original Enlarged Committee of the Association This committee appointed 56 physicians from New York as officers of the Congress and of the Sections Of this number, 27 were on record as adhering to the "National Code," 20, as having adopted the "New Code," and the remaining 9, either as in favor of no code of ethics or as uncommitted or unclassified This classification is taken from a publication issued by a body of physicians in New York City, which afterward organized the New York State Medical Association The American Medical Association decided that the Original Committee appointed in 1884 exceeded its powers in appointing the officers of the Congress, and, at its meeting in 1885, the Association enlarged the Original Committee by adding members representing different sections of the United States, and instructed the Committee, thus enlarged, to "review, alter, and amend" the work of the Original Enlarged Committee, and to appoint the officers of the Congress

The New Committee held several meetings, made a preliminary organization of the Congress, and entrusted the details of the further organization to an Executive Committee composed of the titular officers of the Congress and the Presidents of Sections, with power to increase its membership to a total number not to exceed thirty The Committee on Organization having thus completed its necessary work, put the affairs of the Congress absolutely in the hands of this Executive Committee, which Committee is now perfecting the organization of the Congress in accordance with the rules adopted by the Committee of the American Medical Association

The rules of the Congress admit as members all regular physicians without restrictions as regards opinions on the question of medical ethics, but the Committee virtually acted in accordance with what appeared to be the sense of the body by which it was appointed, which was "that it should place no man in any official position who is in direct opposition to the Code of Ethics of the American Medical Asssociation'" and of all the affiliated State Medical Societies in the United States The present status of the organization of the Congress is that the so-called New Code representatives from New York are freely eligible as members of the Congress The demand of certain members of the profession, who have declined to take any part in the Congress, seems to be that all the officers appointed by the Original Committee shall be restored, including the "New Code" officers from New York, and that the organization of the Congress shall be put back into its original form

If the question involved be one of principle, that principle is whether or not members of the regular profession who advocate consultations with any and all legally qualified practitioners, including such as are registered in the County of New York from the irregular colleges, shall be recognized by appointment to offices in the Congress If the question relate merely to individuals, it resolves itself into one of the appointment as officers by a Committee originally derived from and appointed by the American Medical Association, of members of the profession who are in direct opposition to its Code of Ethics

The foregoing is a simple statement of what appear to be the relations of the profession of New York to the organization of the next International Medical Congress, giving the condition of medical matters in the State as it appears from printed records and documents, without trending upon the questions of geographical distribution of offices and the proper functions and powers given by the American Medical Association to its Original Committee on Organization of the Congress

"THE MITRAL CARDIAC MURMURS"

Under this title is an admirable contribution by DR. A. FLINT, SR. to the January number of the *American Journal of the Medical Sciences*. As stated by its author, the paper is not designed to add any new facts to what is already known of the subject, but merely to call the attention of the profession anew to some of the characters of heart murmurs belonging to the mitral area. The paper is written in the author's happiest style, and would repay every general practitioner for its perusal.

Mitral murmurs are divided by the author into four classes as follows: Mitral regurgitant, mitral non-regurgitant or intraventricular, mitral presystolic, and mitral diastolic murmurs. A systolic murmur which is heard with greatest intensity at or near the heart's apex is of so common occurrence as to be familiar to almost every physician, and is generally considered to denote incompetence of the mitral valves. In the majority of cases this murmur is propagated to the left and is audible upon the back. It is accompanied, too, with an accentuation of the second pulmonary sound and demonstrable enlargement of the right ventricle. In such a case there could be no reasonable doubt thrown upon the existence of an insufficiency of the bicuspid valves. According to Dr. Flint there may be heard at times a systolic murmur, having its maximum of intensity at or near the apex, which, however, does not depend upon a regurgitation of blood into the auricle. It is produced within the left ventricle, and hence is termed by Flint "intraventricular" or "non regurgitant." He does not attempt to account for its production in all cases, but thinks it might occur if there were a deposit of fibrine upon the ventricular aspect of the valves as the result of endocarditis.

In support of the existence of such a murmur, he cites a case reported by Dr. Janeway, of New York, in which the necropsy showed that the mitral systolic murmur heard *intra vitam* must have depended for its production upon a tendonous band which stretched across the cavity of the ventricle, since the valves were competent. Dr. Andrew H. Smith attributes the murmur in question to the friction of the opposed edges of the valve segments. But this theory Dr. Flint does not consider adequate to its explanation. That a non regurgitant murmur may exist is, according to the author, borne out by the clinical fact that in such cases the secondary and disastrous results of regurgitation never develop. George Balfour, on the contrary, regards such cases as instances of functional, not organic incompetence of the bicuspid valves, depending upon the relaxation of the ventricular walls and consequent stretching of the auriculo-ventricular orifice. With this theory Dr. Flint is by no means in accord. As might be expected, the differential diagnosis of a mitral regurgitant or non-regurgitant murmur is not always easy. But, if Flint's view be correct, that a mitral systolic murmur may exist without incompetence of the valves, there can be no increase of pressure within the pulmonary circuit, and hence no accentuation of the second pulmonary sound. This, it seems to us, ought to prove a valuable aid in determining the true nature of such a murmur. In some cases, the author says, a non-regurgitant may be combined with a regurgitant murmur. It is then to be distinguished by its softness and blowing quality.

Of the presystolic murmur Dr. Flint has much to say. His description of its character corresponds with that of other competent observers, viz., that it is rough and usually loud. He denotes it as "vibratory or blubbering," thereby meaning the same as those who call it "rolling," "grinding," or "churning." As to the mode of its development, however, all observers are not in accord. Flint asserts his belief in its dependence upon that condition of the valves in which the edges are glued together, thus forming a funnel shaped sack with a button hole slit. Hilton Fagge, in "Reynolds's System of Medicine," appears to regard this distortion of the valves as that most often found in cases in which a rough presystolic murmur was heard during life. Douglas Powell has essayed to prove that the most usual form of valve associated with this murmur is what he has termed the "diaphragmatic valve." In this condition the valve is stretched diaphragm like across the ostium, leaving a constricted opening. Balfour adopts this theory of Powell, and plainly states in the present edition of his "Lectures on Diseases of the Heart" that in the majority of cases with a rough presystolic murmur the valves do not present the funnel shape described. It is probably within bounds to state, however, that the majority of observers agree with Flint upon this point.

There is another question pertaining to the presystolic murmur in which the author appears to stand alone. It is as to whether a presystolic murmur may ever be pesent without stenosis of the mitral orifice. Dr. Flint has reported three cases in which he observed such a murmur, yet in which the autopsy revealed no constriction of the *ostium venosum sinistrum*. In two of the cases the valves were healthy, while in the third there were small vegetations upon the auricular aspect of the curtains at their base. In all three cases aortic incompetence existed and had been diagnosticated *intra vitam* from its characteristic murmur. Balfour openly charges the author with inability to recognize a presystolic murmur and with having confounded it with the aortic diastolic one present in all of the cases. To accuse so competent and experienced an observer as Dr. Flint of such ignorance and negligence is discourteous, to say the least, and it is not strange that the author should feel incensed. Whether his explanation of the phenomenon be tenable or not, the correctness of his observation ought not to be doubted.

Lastly, the author directs attention to the not infrequent presence of a mitral murmur which is diastolic. That is, it occurs at or just after the second sound and is separated by an appreciable interval from the succeeding ventricular systole. This is as definitely characteristic of mitral stenosis as a presystolic murmur, and has been observed to develop after the subsidence of the latter. It is somewhat soft and bellows-like in quality. Bramwell attributes its production at the beginning of diastole, to the increased force imparted to the inrushing stream by the aspiration of the relaxed ventricle. The author, however, is not inclined to endorse this explanation. Whether this mitral diastolic murmur can be accounted for satisfactorily or not, the occurrence of such a phenomenon cannot be denied, and in the author's opinion, is entitled to the classification accorded to it, except indirectly. Dr. Flint says nothing concerning another diastolic murmur that is occasionally heard with maximum intensity at the apex, yet is not generated at the mitral orifice. This is that very rare form of aortic regurgitant murmur first described by Balthazar Foster and recognized by both Balfour and Fothergill. In case the posterior segment of the aortic valves be ruptured, the ensuing murmur is said to be loudest at the apex instead of at the middle of the sternum. Foster is said to have made the diagnosis of incompetence of the posterior cusp in one case, in which it was verified by the necropsy. Although this murmur is not mitral in the sense of being generated at the mitral orifice, it is such with respect to the area of its greatest intensity, and hence might mislead an observer not acquainted with the possibility of its occurrrence.

Dr. Flint's paper is succinct and full of matter for reflection. Among other things the thought is suggested by the wide divergence of authors concerning the mode of production of certain murmurs, that perhaps all of them may be right. If Savart's theory be correct, viz. that intracardiac as well as intravascular murmurs are caused by the audible vibrations of fluid veins, there is reason to suppose that a variety of conditions may produce these sonorous fluid veins. Accordingly, in the first case reported by Dr. Flint, the vegetations upon the auricular surface of the mitral curtains may have generated such fluid veins, even without stenosis. Similarly, in the other cases, conditions dependent upon some peculiarity in the stream regurgitating from the aorta may have produced fluid veins at the very instant of the auricular systole, and thus given rise to a presystolic murmur. Also, may not a variety of conditions produce non-regurgitant or intraventricular murmurs? Moreover is it wise to attempt to explain all murmurs occurring in the pulmonary area as the result of one and the same physical condition? May not Naunyn's theory, which Balfour defends, be true of some cases, while in others the murmur is hæmic and located in the pulmonary artery?

Much as we flatter ourselves we know of the physical diagnosis and of the pathological conditions of the heart, we are yet wofully ignorant of many things which more extended clinical observation, supported by post mortem examinations, will probably reveal to the ken of future generations.

FELSENREICH'S MODIFICATION OF ALEXANDER SIMPSON'S AXIS TRACTION FORCEPS.

We desire to call attention to Dr. T. Felsenreich's paper, entitled "Experiences with the Axis-Traction Forceps," appearing in another column, for two reasons: 1. It is a valuable contribution to the literature of the subject of the axis traction forceps by an accomplished obstetrician of very large experience; 2. It settles conclusively a question, in regard to which some difference of opinion seems to exist. Dr. L. E. Neale of Baltimore, presented to the Medico-Chirurgical Faculty of Maryland, in Baltimore, and the American Gynæcological Society, in Washington, 1885, a model of an axis traction forceps, which he has since decribed under the title, "An Obstetric Forceps," in the *American Journal of Obstetrics*, September, 1885.

It was asserted in our editorial columns, September 26, 1885, that the instrument as described by Dr. Neale in the journal mentioned, was identical in all essential details with Felsenreich's modification of Alexander Simpson's axis-traction forceps; that this valuable instrument (Felsenreich's modification of Alexander Simpson's axis traction forceps) was used in Braun's clinic, exhibited in courses on operative obstetrics, and exposed for sale by Mr. J. Leiter during Dr. Neale's sojourn in Vienna, a considerable period of time prior to the construction of the so called Neale axis traction forceps, that Felsenreich's modification could scarcely have escaped the observation of such an acute, zealous, and industrious student as Dr Neale, and, finally, that Dr Neale's allusion to Dr Felsenreich[1] in the paper mentioned, was disingenuous

Some correspondence ensued between Dr Neal and the editor of THE JOURNAL, which resulted in a communication to Dr Felsenreich, now Docent in obstetrics and gynæcology at the University of Vienna Dr Felsenreich's reply is published without comment, as the point in question is discussed in no unequivocal terms

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, January 13, 1886

THE PRESIDENT, C H A KLEINSCHMIDT, M D, IN THE CHAIR

T E McARDLE, M D, SECRETARY

DR BERMANN presented a number of

NASAL POLYPI

removed from one person These tumors, he said, were not gelatinous, but fibrous, and showed under the microscope a large number of connective tissue corpuscles The patient was supposed to have had bronchial catarrh She suffered from asthmatic attacks and was unable to breathe through the nose Her general health was much affected and she presented quite a decrepit appearance when first she came to his office He removed the polypi with a snare, taking away as many as he could see at each sitting He cauterized the points of insertion with tri chlor acetic acid, and believed that the tumors would not return The proceeding was painless At first he used cocaine, but afterwards dispensed with it on account of its numbing influence on the patient's tongue He related the salient points of a similar case which had been under his care in Baltimore

DR J FORD THOMPSON did not understand why Dr Bermann should use a snare when forceps is so much more convenient and simple He himself had removed polypi with forceps which could not be reached with the snare He could thus remove as many as he desired at one visit

DR BERMANN thought the forceps too rough an instrument for such delicate work Moreover, in his experience it was not as satisfactory as the snare, for the forceps could not reach points which could be reached with the latter instrument, for example, the lateral surface of the turbinated bone between it and the antrum

(To be concluded)

Stated Meeting, January 20, 1886

THE PRESIDENT IN THE CHAIR

DR H C YARROW read the history of a case of

PAPILLOMA OF THE BLADDER

The patient, a male, aged about 45, noticed some fourteen years ago an irritability of the bladder, a constant desire to micturate, with scanty flow, and after a time a profuse discharge of bloody urine, subsiding within variable periods of time under the administration of appropriate medicines This condition of affairs continued until the winter of 1884, when he came under Dr Yarrow's care, and he supposed at this time that he was suffering from renal hæmorrhage He was examined very carefully with a view to determine the origin of the bleeding, and all possible sources were excluded with the exception of a surmise that a tumor or villous growth perhaps existed His urine was frequently examined microscopically, but no signs of a growth were discovered All sorts of hæmostatics were employed in addition to local remedies, but the bleeding still continued, until finally it was decided to try and remove a portion of the growth if one was present, by means of a searcher, or short curved sound Sweeping this instrument carefully around the inside walls of the bladder, it met with an obstruction at the lower portion of the posterior wall, but it was impossible to say whether there was a growth or simply a rugous condition of the wall The beak of the instrument was passed over it several times, and then all further manipulation was abandoned There was very free hæmorrhage the next day, and in the afternoon several shreds of tissue were passed, these being submitted to microscopical examination, proved to be portions from a papillomatous growth The diagnosis was submitted to the patient, and he was advised to have the growth removed, but the bleeding ceasing after awhile, he concluded not to have anything done

He had no further return of serious hæmorrhage until November, 1885, when he again placed himself under Dr Yarrow's care He was again advised that an operation should be performed, especially as the diagnosis was confirmed by the examination of another shred from the growth, but he hesitated until grave fears were expressed for his life He was losing daily an appalling amount of blood, and was becoming manifestly weaker day by day, notwithstanding all known remedies were used to control the bleeding He finally agreed to an operation, and for reasons best known to himself preferred to visit Philadelphia and have it performed by Dr D Hayes Agnew At the patient's earnest request Dr Yarrow accompanied him to that city, and on December 16 he was operated upon in the presence of the class The operation was the one proposed by Sir Henry Thompson, called by the old French surgeons the boutonnière, and may be briefly described as follows The patient having had the perineum shaved, and being anæsthetized, the bladder being filled with water, was placed in the the lithotomy position, and a medium staff, short curved and widely and deeply grooved, was passed into the bladder, and was there firmly held hooked up under the pelvis by an assistant The operator, seated, passed the left index finger into the rectum, feeling with its tip the position of the staff and placing the point of the finger on the apex of the prostate as a guide Then with a long, narrow, straight-backed bistoury, a vertical incision was made through the skin and cellular tissue in the line of the raphé, an inch and a quarter long, the lower border terminating three quarters of an inch above the anus The bistoury was entered, cutting edge upwards, horizontally at the lower border of the incision above the bowel, and parallel with it, and the point was directed inwards until it penetrated the membranous portion of the urethra, entering the groove of the staff The urethra was then incised on the staff for a short distance, taking care not to wound the bulb The knife was withdrawn and a gorget like director passed into the groove of the staff and pressed firmly but gently along the urethra into the bladder The staff was then withdrawn and the left index gently insinuated along the director into the bladder, the director was withdrawn, and the right hand was used to make firm supra-pubic pressure, and bring all parts of the bladder within reach

---

[1] 'The idea of its construction is not *entirely* original with me as the button hole joint for the traction rods was first shown to me by Dr Felsenreich, first assistant to Prof Carl Braun of the Vienna clinic in 1882" —The American Journal of Obstetrics September 1885

The growth on the posterior wall was at once found by Dr Agnew, who proceeded to remove it by using one of Thompson's forceps This growth was nearly as large as an English walnut Further exploration revealed, on the anterior wall of the bladder, another and a larger growth, which was also removed, the two masses together being half as large as a man's fist The bladder was washed out with carbolized water some carbolized cotton applied to the wound, and the patient sent to his bed During the operation not over four ounces of blood were lost No untoward symptoms presented themselves at any time while he remained in the hospital, and on December 31st he returned to his home in Washington apparently well, the incision having entirely healed On the third day after the operation urine passed through the urethra without a tinge of blood, and at the present time he seems perfectly well, being no longer troubled with symptoms of vesical distress, which made life a burden to him

Comparing this operation of Thompson's with the suprapubic or with the ordinary lithotomy operation, I think the advantages are all in favor of the former The bladder and its neck are not injured in any way, and, in short, it is one of the simplest and least dangerous of surgical operations In the suprapubic operation it is almost always necessary to make a counter opening in the perineum for drainage, and even if this be done, statistics show that many patients perish of peritonitis If the growth be so large that it will not pass through the vesical neck, it may be removed piecemeal, divided within the bladder, or removed by lithotomy operation, or a suprapubic incision In some cases Dr Thompson uses small saw like instruments like Hey's saws to remove the growth, but in the majority of cases the forceps are sufficient In case of bleeding from the base of the tumor after removal he uses syringes of peculiar form intended to make a direct application of some one of the hæmostatics In Dr Yarrow's case all bleeding stopped so soon as the growths were crushed off With regard to the statistics of the operation, he will give the results of the twenty cases of vesical tumors operated on by Sir Henry Thompson up to the year 1884, in his own words "Of the twenty cases of tumor, two were in women one of these died in three days of total suppression of urine, autopsy showing advanced disease of kidneys (one contained a large calculus), and that no injury was inflicted upon the bladder The other is now in excellent health, having entirely lost her painful symptoms, observing a few drops of blood, occasionally, after more exercise than usual More than two years have elapsed since the operation Of the eighteen male cases, five died within three weeks after the operation, three others at periods of some months after, two of them from malignant disease developed elsewhere The other nine are living, one of these, from whom I removed a tumor in the autumn of 1882, I operated on again, removing a larger growth than the original one last February, and he has again recovered In four cases no attempt was made to remove the tumor, it being manifestly impossible to do so, but only to diminish it as far as practicable with safety, all these recovered well, and are rather better than before Of the remaining four, one has had no return whatever, four years having elapsed since the operation, a second has slight signs of a return, one year and a quarter since operation, but works hard for his living at 64 years of age, a third who, like the last, was at death's door from loss of blood when I operated, has greatly improved, and is actively employed, but has recently shown some disposition to bleed after exercise, nearly a year since operation The fourth was greatly improved, and returned to the active life for which he was before disqualified The others have too recently been operated on to furnish any material fact to be reported More ample details are furnished in the table of cases I may thus briefly sum up the record of the numerous facts related For every one of these patients with tumor, in the natural order of events, one result only was possible Left to themselves, without surgical aid, death inevitably awaited each, a fate not merely certain, but involving protracted suffering"

A portion of the growth removed from the patient whose case has been reported has been examined by Dr Gray, of the Army Medical Museum, and he reports as follows "The enclosed specimen is a section taken from the tumor of bladder removed by Dr Agnew December 16, 1885 It is a fimbriated papilloma, under the microscope it shows a number of single and branched papillæ The core of these papillæ is made up of delicate connective tissue covered with layers of columnar epithelioma, which rests on a delicate basement membrane The growth is usually known as a soft papilloma"

In conclusion, Dr Yarrow said that when we read accounts of certain operations described by the great masters of surgery, in the mere reading they appear very simple, but when we come to put into practice the unusual dexterity needed we occasionally find the work much more difficult than we supposed He does not think such is the case with regard to Thompson's operation Anticipating that his patient would sooner or later consent to an operation, he practiced it upon the cadaver, hoping to do it for him himself, and was amazed to find how simple and easy the whole procedure was, and he is sure this will be the experience of any of the members of this Society who may wish to try it

Dr J Ford Thompson said some of Dr Yarrow's remarks might be construed into a reflection on modern surgeons The operation of which he speaks is one of the simplest which can be performed on the urethra He himself had performed it four times within the last few months for various reasons The patients were suffering from ruptured urethra, stricture, urinary infiltration, or some other trouble calling for this operation, which is nothing more than the median operation for stone It is not the boutonnière operation devised and practised by Dolbeau That surgeon, after an incision, used dilators for widening the membranous portion of the urethra The operation as described by Dr Yarrow and as practised everywhere, cannot be a difficult one, for it would be almost impossible for the surgeon to miss the large groove of the staff previously introduced into the bladder It is much more difficult to operate without the presence of a staff in the urethra

Dr Yarrow replied that he was quite well aware that Dolbeau had invented the boutonnière operation but he also knew that Sir Henry Thompson had applied it to the removal of these tumors from the bladder He had brought this case to the attention of the Society in order to show the ease with which papillomatous growths could be removed from the bladder

Dr J B Hamilton desired to call attention to several points in the case under discussion It was of course necessary that a proper diagnosis be made In order to distinguish between hæmorrhage from the kidney and hæmorrhage from the bladder, he would suggest the exhibition of gallic acid, which would stop the hæmorrhage from the kidney, but would have no effect upon the hæmorrhage caused by a papilloma He had recently used this acid with good results in some cases of carcinoma uteri In other situations as well as the bladder papillomata recur after removal He had removed one from the cheek three times within a year—in January, May, and October last They are also prone to take on epithelial transformations by reason of cell substitution The mere removal of a papilloma from the bladder does not give assurance that it will not return

As to the method of operation, the only philosophical way is to cut through the perineum This operation is sometimes difficult and sometimes easy Last summer he operated twice on account of impassable strictures He operated without a guide In one case he was twenty minutes, in the other an hour and fifteen minutes performing the operation It is true there was a difference in the length of the strictures So it might be with the attachments of the tumor Generally, however, the operation is easy

Dr Thompson said he had that day been consulted in reference to a case in a neighboring city The tumor was described as being as large as a man's fist He related the history of a case of papillomatous disease of the rectum in which he had operated as thoroughly as possible, but unfortunately the trouble has returned He agreed with Dr Hamilton that the disease frequently takes on a malignant character

Dr Yarrow could not see that the mere fact that the tumor might recur should prevent an operation The man would certainly have died before this, and he is now more comfortable than he has been for fourteen years

Dr A F A King was glad to know that surgeons were able to treat these troubles so easily and successfully We must do the best we can for these patients, and give them the benefit of every chance He wondered if there would not be less liability of a recurrence after an early operation following an early diagnosis He thought there should be no difficulty in diagnosticating between hæmorrhage from the bladder and blood from the kidney

Dr Hamilton did not wish to be understood as speaking against the operation because the tumor may recur If he had held such a belief he would not have operated three times on the case cited

Dr Ryburn said that a diagnosis was easy soon after the tumor made some progress, from the fact that small pieces become detached and are voided with the urine The amount of tenesmus caused by the presence of such a growth in the bladder is very great He recalled some of the incidents of a case which he reported to the Society some time ago, in which the patient died after weeks of excruciating anguish Whilst the operation is an old one, it is new in its application for the removal of papillomatous growths of the bladder

Dr A Y P Garnett related the case of a female whose urethra he dilated for the purpose of applying styptics to a growth at the neck of the bladder Two applications of nitric acid were successful He thought it would be difficult to distinguish between the hæmorrhage caused by a villous thickening of the lining membrane of the bladder and hæmorrhage due to a papillomatous growth But these villi do not offer such resistance to the contractile powers of the bladder, hence when they exist there is not such thickening of the vesical walls as where there is a papilloma present

---

GYNECOLOGICAL SOCIETY OF BOSTON

Stated Meeting, November 12, 1885

The President, H O Marcy, M D, in the Chair

Dr Ernest W Cushing made some remarks on

THE RELATION OF BACTERIA TO CERTAIN PUERPERAL PROCESSES

These observations were based upon the results of examination of the bodies of such women as died from these maladies in the General Hospital at Vi enna, last spring He mentioned the great difference between the customs and rules governing the obstetric assistants and students in Berlin and Vienna In Berlin every care is taken to avoid infection, either from foul hands or instruments or from the clothing or hair In Vienna many of these precautions are omitted, and students are permitted to attend autopsies and operations on the same day Obstetric operations and laparotomies are performed before the whole class, without spray, and the chief assistants give operative courses upon the cadaver every afternoon, relying for safety upon washing, bathing, and change of clothing In spite of this seeming carelessness sepsis in puerperal cases is rare, this would seem to be an argument that puerperal septicæmia is not an entity that floats about in the air and enters the system through the lungs, etc , but that it is due to the development and propagation of bacteria introduced into the system directly from fingers, instruments or applications

As a result of the examinations above mentioned Dr Cushing stated that the most frequent cause of infection was the streptococcus, the next the staphylococcus, with which is frequently associated the bacillus pyogenis fœtidus The streptococcus occurs in chains, the staphylococcus in bunches like grapes One or other of the above species was found in every acute case, either in the iliac or uterine veins, or both In pelvic abscesses they are found in the lungs and joints wherever metostatic abscesses are found Microscopic preparations of the above were shown and specimen cases described

In the discussion of Dr Cushing's remarks the question arose in regard to the pathology of the chill which is so frequently noticed in pyæmia and other processes

Dr Z B Adams thought that in many cases the chill was not due to the presence of micro organisms, but was simply a nervous manifestation due to nerve irritation The chill which follows catheterization was due simply to the irritation of the catheter carried to the nerve centres through the nerves alone Rigors may occur from abscess when the abscess is separated from the surrounding tissues by impermeable walls

Dr Warner thought that chills are not always due to the presence of micrococci, but may be due to different causes in different cases

Dr Cushing maintained that catheter fever and the chills which precede or accompany catheterization are due to infection from foul instruments or catheters

Dr H J Harriman then read a paper on

HABITUAL CONSTIPATION IN WOMEN, ITS CAUSES AND EFFECTS

(See page 150)

Dr Warner said that the condition of the bowels should be an important consideration in the treatment of all cases Generally they will be found constipated, but careful attention to secure regular and full evacuations will often secure better results than any local treatment Whatever success he had had in treating the diseases peculiar to women was due to constitutional rather than local treatment Dr Warner mentioned a case which he had once examined for pelvic trouble where he found the rectum greatly distended by fæces The patient said that such could not be the case, as she had suffered from diarrhœa for several days It proved that a canal had been formed through the fæcal mass through which the diarrhœal discharges had taken place The speaker had used for years with great success the following pill in cases of habitual constipation ℞ Pil hydrarg , grs iii, ext hyoscy and ext colocynth, aa, gr i

Dr Wm G Wheeler mentioned the case of a school teacher who presented herself for treatment and stated that her bowels were regular Treatment was carried out for some time without any improvement More careful inquiry in regard to the state of the bowels revealed the fact that they "moved regularly once a month "

Dr Marcy mentioned a case at Block Island in which thirty one days passed without an evacuation of the bowels

The President then read a communication from Dr H C Ghent, of Belton, Texas, in which he called attention to a

NEW AND SUCCESSFUL AGENT IN THE TREATMENT OF VESICAL HÆMORRHAGE

A patient was operated on for vesico vaginal fistula Wound healed by first intention On fifth day after operation a furious hæmorrhage from the bladder occurred, and persisted for more than two days in spite of every effort for its control The loss of blood was fearful As a last resort equal parts of iced water and apple vinegar were injected into the bladder Before a pint of the mixture had been injected the bleeding ceased and did not recur Dr Ghent raises the question as to whether vinegar or acetic acid has been before used for vesical hæmorrhage

---

DOMESTIC CORRESPONDENCE

BRANCHES OF THE AMERICAN MEDICAL ASSOCIATION

To the Editor of the Journal

Dear Sir —Some recent conversation on the subject of the formation of Branches of the American Medical Association, similar to those of the British Medical Association, has suggested the idea that some steps might be taken with this end in view at the coming meeting of our Association in St Louis That the formation of such Branches would be for the good of the profession generally, and therefore of the Association, cannot be questioned, unless we shut our eyes to the advantages derived from the system in Great Britain and her Colonies The late Guéneau de Mussy said, a short time before his death, that the British Medical Association was the greatest medical organization in the world, and it is not difficult to see that its greatness is, in great part, due to its Branches

It seems that the proper steps towards the formation of such Branches must be (1) some provision on the part of the American Medical Association by which those who are already members of the Association may form themselves into separate bodies (Branches), which shall be so constituted, and have such powers and privileges, and be subject to such obligations, as shall be determined on by the Association in general meeting; (2) a provision by which societies composed of members and non-members of the Association may, upon application form themselves into Branches, under the same rules and regulations as stated in (1); (3) a provision empowering the Branches thus formed to admit members of the regular profession in good standing to membership in the Branches, and thus to membership in the Association.

It has been suggested that the making of a large Branch of a State Medical Society would scarcely be feasible, for two reasons: 1. The members of the State Society would object to being deprived of their liberty in this way, and being made a *dependency* instead of a sovereign society. Regarding this question there is much to be said on either side. The objects of the State Societies and of the National Association are the same: the promotion of medical and the allied sciences, and the maintenance of the honor and the interests of the medical profession. The State Society would still have control of its own members, and those members would also be members of the National Association. The ties uniting the State Societies (or Branches) to the American Medical Association would be similar to those uniting the States to the General Government. There can scarcely be a doubt that the profession in the different States will be brought more closely together, and in this way the medical men of the whole country, questions and methods of medical reform will be more easily settled and prosecuted; and altogether the advantages would outweigh the disadvantages.

2. A second question as to finances would come up when it was proposed to ask State Societies to become Branches of the American Medical Association. For example, the members of these Societies pay a certain sum each year as dues, part of which is for the publication of the Transactions of the annual meeting. It might be said that every member could not well afford to pay his dues in the State Society, and his Association dues in addition to this; and consequently, if the whole State Society becomes a part of the National Association the Association should secure to the members of the Society the publication of their Transactions. Two answers may be made to this. The number of members of a State Society who cannot pay the two sets of dues is extremely limited; so small that it may be practically eliminated. Again, the value of the average State Society Transactions, as printed, is very little, and the published Transactions could be easily and even profitably dispensed with in some cases. All sorts of papers, from good to very bad, are mixed in them. In some cases the time for papers is limited, as well as the space for any one paper in the published Transactions, and the papers often go out into the world half printed, and with some important discussion or conclusions omitted altogether. There is no good reason why the business proceedings of the Societies should not be published in the journal of the Association, and let the papers be published wherever the authors may elect. Such is the plan adopted by the Branches of the British Medical Association. It could scarcely be supposed that all the papers could be published in one journal.

In great Britain the dues to the Branches seem to be comparatively small; the dues for the Bath and Bristol Branch are only four shillings a year (less than a dollar). The regulations of the Branches of the British Medical Association seems to be very similar to those of our State Societies, with the addition that each Branch has a voice in the General Council of the Association, through its representative elected at the general meeting of the Branch. (Every Branch is entitled to elect one representative to the Council, and every Branch consisting of more than 200 members is entitled to elect an additional representative member for every complete 200 members of which it consists.) It may be remarked here that the General Council of the British Medical Association is for the purpose of taking a great deal of the business details out of the hands of the Association, and thus causing a great saving of time at the general meetings.) The By-laws of the Association regarding Branches are as follows: 1. Any number of members, not being less than twenty, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Council. 2. Each Branch shall be free to govern itself as its members shall see fit, but no Branch law shall be valid which, in the opinion of the Council, may contravene any fundamental law of the Association. 3. Each Branch shall pay its own expenses, and no Branch shall be deemed for any purpose the agent of the Association, or have power to incur any obligation in its behalf.

The Branches of the British Medical Association now number thirty-four, exclusive of Colonial Branches, representing a membership of about 7000 Branch members. (It should also be said that very many members of the Association do not belong to any Branch.) Can there be any good reason why the American Medical Association should not soon become as powerful as our sister Association across the Atlantic? If there be any objections to the proposed system, would it not be well to put them forward now, in order that they may be avoided or met, as the case may be? Would it not be well for some of the members of the American Medical Association to discuss the subject in THE JOURNAL, so that some action may be taken at the next meeting of the Association, in St. Louis in May? Anyone who will take the trouble to look the matter up will be surprised to see the number of physicians in this country who do not belong to any medical organization at all. Even in some of the most populous States there are numbers of counties without any medical society, and in many of the counties in which medical societies exist, there are numbers of medical men who have no connection with them. If the plan suggested in this communication should be carried out, there seems to be no reason why nine-tenths of our physicians should not belong to a

BRANCH

MUTUAL PROTECTION AGAINST BLACKMAIL

To THE EDITOR OF THE JOURNAL

Dear Sir —I have read with much interest the various expressions of opinion concerning the subject of protection against blackmail, published in THE JOURNAL of January 30 In considering such a question as this it is useless to rail at "shysters," or to assume that every action for malpractice is a case of attempted blackmail So far as my observation extends, the average lawyer is no better, and certainly no worse than the average doctor, and so long as human nature is unchanged I suppose that there will be both shysters and quacks Without doubt many cases of malpractice exist which never find their way into court, I do not think that any respectable lawyer would bring a case which he thought groundless, but I am quite certain that many medical men of apparently good standing in their profession are open to the criticism so well expressed by Dr Hotz in the discussion of Dr Doering's paper

In my opinion, much more can be done in the way of preventing suits than has been attempted This may be accomplished in several ways (a) by reputable physicians refusing to countenance such suits by abstaining from criticism, and by being a little more cautious in giving so called expert testimony, (b) by taking some pains to learn what their rights and duties are, and (c) by paying more attention to the preservation of evidence in all cases in which there is a possibility of a question of malpractice being raised

As to the association discussed in your columns, the matter deserves serious consideration While there is no doubt that membership in such an association ought not to affect the decision of the issue in a malpractice case, still there is no doubt whatever that on cross examination the fact of such membership would be made to appear To foretell the effect of such a fact upon the average jury would require omniscience It ought not to prejudice them, provided the association appear to be for the purpose of protection against vexatious and groundless actions, and provided it be made distinctly to appear that every case is impartially investigated, and the prosecution of well grounded actions encouraged instead of discouraged As to any attempt by such an association to prevent physicians from testifying in proper cases, even to the extent of disclosing professional secrets, I have no doubt whatever that, in the present state of the law, which needs amendment in this respect, such attempt would be unlawful

It is worthy of consideration, however, whether such an association might not discourage champertous contracts between attorneys and blackmailers, in other words, discourage taking cases on "spec," to use the words of the worthy Samuel Weller in the famous case of Bardell vs Pickwick, by instituting prosecutions for champerty against attorneys guilty of such practices, for there is no doubt whatever that taking such cases on shares is to day a criminal offense in this State

Some twenty years' experience in the study and practice of the law and several years' study of the subject of legal medicine lead me to think that many of the groundless suits would be shorn of many of their terrors were the defense more efficiently conducted Most lawyers are as ignorant of medicine as most doctors are of the law, and that is saying a great deal In a case in which I was interested a year or so ago, the counsel for the plaintiff, a well known trial lawyer, betrayed the most colossal ignorance of the affection in question To retain an attorney and expect to teach him the science of medicine and surgery by defending malpractice suits, as suggested by one of the correspondents, would be rather a perilous undertaking for the unfortunate defendants who happen to furnish the first series of cases—I had almost said cadavers That the attorneys do as well as they do, however, is a high compliment to the profession, but to expect that a non-medical man can be able to "cram up" on a case so as to understand the subject in all its relations, in the short time at his command, is expecting too much, they must be supplemented by the doctors themselves, or must be medical men It is manifestly impossible and highly dangerous to a cause to examine or cross examine a witness upon a topic with which the examiner is not well acquainted

I do not think that lawyers and doctors cultivate the acquaintance of one another so much as their interests require A medico legal society would be useful in this respect, but I doubt whether it could be maintained in this busy city, where the race for wealth absorbs so much attention In Continental Europe and Scotland the practice of legal medicine is rightly made a specialty If the members of the medical profession in this city would afford suitable facilities for attendance upon autopsies, etc , to such persons as feel inclined to cultivate this department, I doubt not persons could be found, both honest and capable, who would specialize in this direction At present I believe that New York is the only city in this country in which anything has been done in this direction, and I do not know to what extent such efforts there have proved successful Again, I think that our medical schools should pay more attention to the subject of medical jurisprudence So far as my observation extends very few physicians are well informed upon this important subject, and I think the fault lies with the medical colleges The subject should form a part of the course of every law and medical school, and should be taught by one who is sufficiently well informed to give the students such practical information as will enable them to know their rights and duties in advance of a suit for malpractice The doctor who studies medical jurisprudence for the first time as a defendant in a malpractice suit, or when cross examined in open court, is not most felicitously situated either for giving or receiving instruction In conclusion, permit me to suggest that a special meeting of reputable physicians be called for the discussion of this subject A comparison of views by word of mouth will accomplish more in one evening than can be done by a year's writing

I am, respectfully,

MARSHALL D EWELL, M D ,

170 Washington St , Chicago February 2, 1886

COCAINE, WHAT WAS ITS INFLUENCE IN THE FOLLOWING CASE?

TO THE EDITOR OF THE JOURNAL

Dear Sir —With the view of increasing the amount of clinical evidence as to the value and effects of cocaine, I submit the following history of a case treated in the Missouri State Lunatic Asylum No 2

Esther C, admitted October 21, 1884, aged 39 years, married 20 years, mother of four children, youngest 2½ years old She was a strong, healthy woman until four years after marriage, about which time she became affected with some uterine trouble, and was never strong and well afterwards She had never any acute serious illness Eighteen months previous to admission the first symptoms of mental derangement were observed, manifested by neglect of maternal and household duties, and by frequent attempts to leave home alone, by day and night She became despondent and melancholy, feared injury and death, destroyed her clothing and the furniture, did not eat or sleep much, had periodical attacks of excitement and violence, and threatened to kill herself and baby She had delusions in regard to religion There was no insane heredity, but her mother was an exceedingly nervous woman Her expression was anxious and distressed, and she was restless and discontented

The thoracic and abdominal organs were sound, and performed their functions very well Cervical and corporeal endometritis existed, associated with profuse vaginal leucorrhœa She was greatly depressed and profoundly melancholic, constantly lamenting and complaining that she was the most miserable of beings, and expressing a desire to change her surroundings where sympathy could not reach so unworthy and wretched an object She was removed from the Asylum by her husband in June, 1885, having remained under treatment for six months She was greatly improved, both in physical and mental condition, when removed

In September, three months after her removal, she was re-admitted in a much more deplorable melancholic state than when first she came under observation She had attempted suicide, and was completely inconsolable Her physical condition was low, the uterine disorder and leucorrhœa had re appeared, and her second state was altogether worse than the first On November 2 the use of hypodermic injections of hydrochlorate of cocaine was commenced, Dr A P Busey administering one grain at 9 A M, and the same quantity at 4 P M This was continued for thirteen successive days At this period her physical condition had improved, she was stronger and better nourished, her appetite was better, and she slept better, but her melancholy was as profound and her lamentations as distressing as usual At this time there appeared several irritable boils upon the face, scalp and neck, which was the only indication of systemic disorder

The cocaine had a pleasant effect upon her, always acting as a cerebral and nervous stimulant, and it exhilarated and enlivened her for from one half to one hour after the administration She was so pleased with its effects as to request its administration with great earnestness It always increased the pulsations of the heart from twenty to twenty five beats, and the sphygmograph uniformly indicated very considerable increase of arterial tension It did not produce nausea or loss of appetite, nor did it produce uniformly marked paleness of the surface, which is one of its chief primary characteristic effects Nothing indicating illness was noted at the time when the last evening portion was injected, but during the night she complained of pain in her head, especially on the left side, and she became restless and sleepless On the following morning the temperature rapidly increased, and the pulse also increased in frequency and force, indicating serious constitutional disturbance The surface of the extremities was pale and cool The face was discolored, bluish, turgid and puffed The eyeballs were perceptibly swollen, the eyes dull, pupils motionless, and the vessels of the ball filled with blood The left side of face was more discolored than the right There was a continuation of the severe pain in the head, and articulation and vision were perceptibly impaired She could not be aroused to give an intelligent reply to questions Delirium soon supervened The discoloration and swelling of the face continued The circulation of the extremities diminished The balls of the eyes rapidly protruded, and within a few hours they had protruded so far that the lids could not cover them The balls felt hard, dense and resisting Violent delirium passed into profound coma, which terminated fatally within thirty hours from the time the last injection was given Unfortunately, no autopsy could be obtained

The importance of this subject requires no apology for giving minute details of the case The following conclusions have been arrived at from the observed effects of cocaine, which has been administered very extensively to the insane within the past five or six months

1 It is an agent possessed of great potency It acts primarily with great power and celerity upon the cerebral and spinal nervous system, and secondarily upon the heart and vascular system

2 From its potency and rapidity of action it is liable to initiate organic lesions and functional disturbances which are uncontrollable It is not uniform in its action, and therefore is an uncertain agent

3 Its effects are too transient and unstable to become a reliable and efficient remedy in constitutional or organic diseases The aphrodisiac effects attributed to it have not been observed, neither have the intense nausea and inability to vomit been observed Its permanent beneficial effects in melancholia and allied affections are not established facts, in the writer's opinion

4 As it is an agent of great potency, and as it is under trial to determine its limits of usefulness and danger, it should be prescribed with increasing precaution and discretion GEO C CATLETT, M D,
Physician and Superintendent of State Lunatic Asylum

St Joseph, Mo, January 30, 1886

BOOK REVIEWS

Vorlesungen uber Bacterien, von A de Bary, Professor an der Universität Strassburg Mit 18 Figuren in Holzschnitt 8vo, pp vi, 146 Leipzig Verlag von Wilhelm Engelmann 1885

Bacteria By A de Bary, Professor in the University of Strassburg Leipzig Wilhelm Engelmann Chicago Koelling, Klappenbach & Kenkel

Professor de Bary is well known to bacteriologists and biologists by the three works from his pen which have already been published "Die Fruchtentwickelung der Ascomyceten," in 1863, "Die Mycetozoen," in 1864, and his greatest work, "Vergleichende Morphologie und Biologie der Pilze, Mycetozoen und Bacterien," 1884 The purpose of the little work now under consideration is to give an insight into the nature of bacteria, but the author states in his preface that one must not expect to find a complete treatise on bacteriology

The first six chapters, covering fifty pages, are devoted to the biological and histological study of bacteria in general Then comes a chapter relating chiefly to the subject of fermentation, chapter VIII is devoted to the Saprophytes The subject of fermentation is again taken up in the next chapter The remaining chapters deal with the parasitic bacteria, including a general discussion of parasitismus The harmless bacteria of warm blooded animals are discussed in a short chapter, *Milzbrand* and Chicken-cholera in one of eighteen pages, and the "Causative Relations of Parasitic Bacteria to the Infectious Diseases of Warm-blooded Animals" in one of twenty pages The last chapter concerns the "Bacterial Diseases of the Lower Animals and of Plants"

It will be seen by this short account of the scope of the work, that methods and questions of cultivation of bacteria receive but very little attention Nevertheless, the work contains a vast amount of interesting reading and positively useful material—material that cannot be obtained in such concise form in any other work of which we have any knowledge It is completed by a good index

Practical Surgery Including Surgical Dressings, Bandaging, Fractures, Dislocations, Ligation of Arteries, Amputations and Excision of Bones and Joints By J Ewing Mears, M D , Lecturer on Practical Surgery and Demonstrator of Surgery in Jefferson Medical College, Surgeon to St, Mary's Hospital, etc With 490 Illustrations 8vo, pp xii, 794 Philadelphia P Blakiston, Son & Co 1886 Chicago W T Keener

As a convenient work on practical surgery, this, the second edition, is much in advance of the first Three new sections—on fractures, dislocations, and resections—have been added, and enhance the value of the book, and the section on antiseptic dressings has, of course, been almost entirely rewritten and much improved Indeed, it is not sufficient to say that it has been much improved, since it is now a very clear and concise statement of the antiseptic methods of surgery

Of the chapters devoted exclusively to surgical technics, the one on excisions is perhaps the most pleasing, and of this chapter the part on excisions of the face This is only natural, in view of the fact that the author has won an especially enviable reputation in this particular field of surgery Though there may be a few points on which many surgeons would differ from the author, as a whole the work is excellent, the student or practitioner who follows it intelligently cannot easily go astray We could wish that a chapter had been added on operations on the abdominal and pelvic cavities, and on the operations for hernia

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE PROFESSION IN AMERICA

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION

Membership —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly Journal of the Association for one year

Members by Application are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly Journal

When Dues are Payable —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the Journal for one year from the following July Payment for 1885, for example, entitles the member to the Journal from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the Journal of the Association

Subscriptions to the Journal, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph

Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

DEATHS —When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

PAYMENT OF DUES FOR PREVIOUS YEARS —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

TRANSACTIONS OF THE ASSOCIATION —These annual volumes, thirty three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

RICHARD J DUNGLISON, M D , *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

MIRYACHIT —In an editorial note on this subject the *British Medical Journal* says Etymologically the term *miryachit* is decidedly a failure, originating from a defective knowledge of Russian *Miryachit*, or, as it should be written, *miriatchit*, means literally "he or she fools," or "plays the fool" It is derived from the verb *miriatchitje* The verbal noun is *miriatchenie* (fooling or playing the fool), he or she who *miriatchit*, is *miriasha* Hence—if it be desirable to retain a Russian word—it would be more sensible to call the disease *miriatchenie*, as it is called in Russian, instead of *miryachit* (he fools) In the *Vratch*, No 36, 1885, p 602, Dr Jankovsky publishes an interesting note on an epidemic of this curious neurosis, which has come under his observation in the Littoral District of Eastern Siberia He first came to be acquainted with *miriashas* in this way One fine evening in 1876, shortly after he had been appointed surgeon to the 1st Eastern Siberian Infantry Battalion, a *feldsher* (assistant surgeon) on duty hurried to him with a startling information that fourteen "mad" soldiers had been brought to the hospital On his arrival, the author really found a crowd of the patients, and, naturally enough, addressed to them the question, "What is the matter with you?" To his greatest astonishment, all fourteen addressed him in chorus, "What is the matter with you?" He tried then to put the interrogation in another way, "What ails you?" The answer followed again, "What ails you?" In short, every word of the medical man was simply echoed by every one and all of the patients On examination, he found, in every individual case, increased apex-beat, rapid pulse, extreme nobility of the limbs, (especially of the hand), somewhat increased cutaneous sensibility, dilatation or contraction of the pupils, gay disposition, laughter, or smiling, without any reason whatever, etc While the author was examining the patients, an officer in command arrived, and informed him that all the men had had for their supper potatoes with hemp oil, the latter being bought of a Corean hawker On hearing the work "oil" (*maslo*) spoken by their commander, all the soldiers suddenly went on with repeating "Oil, oil, oil," in all possible manners, in spite of all entreaties and injunctions In view of the fact that one of the patients vomited, and after vomiting ceased to "fool," the author ordered emetics and purgatives in every case The patient, slept quietly through the night, and on the next morning all were well, being able to only vaguely recollect the events of the previous day ("as if in a dream") An inquiry elucidated that the Corean oil merchant was a *miriasha*, and that "fooling" attacked only those soldiers who had seen and spoken to him Another case of multiple *miriatchenie* was observed by Dr Jankovsky in Vladivostok in 1878, in four children of one family, aged from 3 to 7 years Sporadic cases of "fooling" were met with by him very often As a rule, the disease is chronic, and apt to spontaneous remissions It begins mostly under the influence of contact with a *miriasha*, but sometimes is hereditary It attacks only natives and "well acclimatised" immigrants, and here again only children and subjects of a "low intellectual level" The general health of the *miriasha* remains intact The disease usually does not interfere with the occupation of the patient It is obviously a form of "epidemic male hysteria"

PROGRESS OF SMALL-POX AND CHOLERA —From the circular of the National Board of Health, dated January 27, 1886, we take the following results of small pox in Montreal up to January 20, 1886 During the week ending Jan 21 there were 10 deaths in the city and 6 in its suburbs The total number of deaths from small pox in the city of Montreal from the beginning of the epidemic in April to December 31, was 3,164, as follows In April, 6, May, 10, June, 14, July, 46, August, 239, September, 659, October, 1,393, November, 633, December, 165 There were also 363 deaths from measles, typhoid fever and diphtheria during the year, and the total mortality from all causes during 1885 was 7,885 as against 4,358 during 1884 Consular reports from different parts of Europe show that the disease is decidedly declining as a whole

From the same sources we learn of the continued prevalence of cholera moderately in the Province of Huelva in Spain, and in the single Department of Finisterre in France

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JANUARY 23 1886 TO JANUARY 29 1886

Col John I Summers, Surgeon U S Army retired from active service by operation of law, Jan 24, 1886 (S O 20, A G O , Jan 25, 1886)

Major Wm L Waters, Surgeon, granted leave of absence for one month and fifteen days (S O 5, Div Atlantic, Jan 23, 1886

Asst Surgeon J M Banister, ordered for temporary duty at Ft Warren, Mass (*S O 16, Dept East, Jan 23, 1886*)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI   Chicago, February 13, 1886   No 7

ORIGINAL LECTURES

EPILEPSY—TORTICOLLIS—IRRITABLE HEART

A Clinical Lecture Delivered in the Jefferson College Hospital

BY ROBERTS BARTHOLOW, M D ,
OF PHILADELPHIA PA
PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS IN THE JEFFERSON MEDICAL COLLEGE

We have here a woman approaching the climacteric period, who tells us that she has had four well marked attacks of convulsions since she was 17 years of age, the last one occurring at night when she had several convulsions, between these well marked attacks she has frequent less severe "spells," characterized by vertigo, more or less confusion of thought and speech and some staggering She belongs to a neurotic family, in several members of which there is a well-marked history of epilepsy

We have, as you know, two varieties of epilepsy, *petit mal* and *grand mal*, between which there is a vast gulf, a vast chasm separates the words epilepsy and epileptiform As a rule, true or essential epilepsy begins at puberty, while epileptiform seizures may commence at any period of life If the seizures begin at the age of 30 or 35, they are most likely dependent upon some organic disorder, and very frequently it is a tumor of the brain In true epilepsy there is not always discoverable any gross lesion, though of course some lesion must be present, and it can occasionally be found Habit, in neurotic persons, may be a cause, that is to say the nervous system forms a habit, just as there is a habit of taste or smell or any other kind of a habit, but, of course, habit plays but a small part in the causation

When investigating epilepsy we must always look out for some reflex cause, inquire about the aura, which may give some clue to the origin, though it is rarely present, and when it is the sensation is usually referred to the stomach It is of the utmost importance to inquire at what times the attacks occur, much more important than you would suppose, for attacks that occur at night are much less amenable to treatment and are much more obstinate Mild seizures and those occurring at long intervals are likewise very obstinate Those attacks that occur in the day time, with great violence, and are directly traceable to some cause, are the most satisfactory because we can usually relieve them by removing the cause They are not infrequently due to the irritation from an overloaded stomach, we must always look for outside disturbances and remove them

If there be any secret in the treatment of epilepsy, it is in regulating the diet I am sure that more good has come from attention to this one point than from anything else I am quite sure that it has worked many cures, drugs have a trifling potency compared with a rigid diet The meals must be small at a time, meat only once daily, and the stomach should never be overloaded, while large draughts of liquid must be avoided, even of water Fatty food should be interdicted, and but small quantities of starchy or saccharine matter allowed For drugs, we must remember that this woman is approaching the climacteric period and that the attacks are growing worse, hence our drugs must be directed towards allaying any irritability of the sexual system This can be best accomplished by the use of bromide of sodium, of which we will order one drachm, morning and evening, for the first week, and after that one drachm daily, in two doses We will also look to all the other functions, and if we find any derangement we will remedy it

Torticollis —This might seem, at first blush, like a trifling case to bring before you, but it offers some very interesting points I have repeatedly impressed upon you the importance of studying the physiognomy of disease, and this case serves to point the remarks An acute observer could make a diagnosis in this case without asking a question The external expression of parts, the features will reveal much, and it will repay you to cultivate the habit of close observation You may recall the old adage, "Show me your ear and I will tell you who you are, whence you came and whither you go" There is much in the idea conveyed by this adage, and you should not forget it Now when I look closely at this woman, I notice that she holds her head in a constrained position, when at rest it is drawn somewhat backwards towards the right shoulder, and there is more or less spasm, more or less involuntary movement By an effort of the will, you will notice that she can keep her head straight before her, the sterno cleido mastoid muscle is rigid, as is also the trapezius, the anterior edge of which stands out The muscles of the opposite side seem relaxed

We have here, then, a case of torticollis, which is one of the most difficult diseases among the minor ills to treat, which statement I am very sure you will verify after you have been a short time in practice The muscles of one side are in a state of spasm in this disease, while those on the other are paretic. One set of muscles are acting over powerfully, the seat of the disease being in the nerves that supply the muscles, there is an irritation of the motor nerve, and this irritation excites the muscle to spasmodic contraction. In every voluntary movement there is a contraction of the muscle under the stimulus of the will, but here the will is in abeyance, the over-acting muscles are hypertrophied, while those on the opposite side are atrophic, the disease is therefore secondary to an irritation of the nervous apparatus.

All kinds of remedies have been used in vain, but we can do so much in these cases by attention to little details and can cure the disease if it has not lasted too long. It has been present in this case for a year. The first point is to look for a cause of irritation to the nerves, is it impinged upon by a tumor, a gumma? If so we have clear sailing. May be the irritation may be reflex from the uterine system, as is not uncommon, and in such cases, of course, we can do nothing towards a cure until we remove the uterine trouble. It is a fact that I have observed that torticollis is especially common among women, and in many of these cases it is associated with uterine trouble. This woman is 49 years old and is now passing through the change of life, it having been seven weeks since her last sickness, the uterine irritation about the climacteric period is a not uncommon cause. Inquire always whether it is due to any disturbance of the stomach or intestinal canal, or whether it is purely neurotic from the climacteric, I am inclined to lean to this latter view in the case before us. We must address our remedies, therefore, to the nervous system of the climacteric. Galvanism and faradism will do a great deal of good, and the best procedure is to galvanize the overacting and faradize the underacting muscles, I will use fifteen cells of a small battery, applying the steady, non-interrupted current on the contracted muscles, and the interrupted current on the paretic muscles, I prefer the slow interrupted current, for the rapid interruptions will throw the muscles into a tetanic condition, the slow current should be applied to each muscle in turn and must be used regularly and perseveringly every day.

A great deal can also be accomplished by gymnastic training under the direction of the will, which should be used to educate the weaker muscles to antagonize the stronger, it is wonderful how much can be accomplished in this direction by the force of the will. All drugs that have a reputation for controlling muscular spasm have been tried in this affliction, and hyoscyamus and gelseminum have done some good, but they do not cure. Arsenic thrown directly into the muscle, by hypodermic injection, has done more good than anything else, its use was begun empirically, because it was known to do good in chorea, which is a disease somewhat analogous to torticollis, some very obstinate cases have been thus cured by arsenic. Cocaine, the drug of the day, has also been used with advantage, injections of one-sixth or one-fourth of a grain being made. While these injections are being made into the contracted muscles, strychnia should be similarly used in the paretic muscles. By these combinations we can generally cure the disease, if there be no lesion of the nerve, but we will find it a very obstinate disease to handle.

Irritable Heart.—Here we have a pale, anæmic woman, in a state of constant nervous tremor, who was told some years ago that she had hypertrophy of the heart, and who ever since has lived in constant fear of a sudden death, afraid to go to sleep, afraid to leave home, unable to perform her domestic duties, and with life a burden to her. She is now at the climacteric period, but she was excessively nervous even before this time. Upon examination I find simply a highly irritable nervous system, which I believe to be mainly due to the high condition of anæmia which the woman presents. She has a neurotic temperament. The heart is not irritable as we see it in exophthalmic goitre, where it continually pulsates at the rate of one hundred or more, her heart, while it is now, under excitement, beating at the rate of one hundred or one hundred and twenty, will, when she is quiet, drop down many beats, but the least emotion will make it drive ahead at a very rapid rate. There is of course some hypertrophy, but this is due to the excessive action of the heart, it is compensatory, it is physiological, and does not constitute a disease. The anæmia which deranges the nervous system is in turn due to digestive disorders, which we find evidenced by heart-burn, acidity and regurgitation of food, she has an insufficiency of diet and poor digestion, there is a degeneracy of primary and secondary assimilation.

It is idle to try to relieve this condition of the nervous system, unless we supply it with good blood, it cannot be done with drugs alone, the nervous system must have good blood, we cannot so change this system as to make it functionate as it would in a person of lymphatic temperament, but we can greatly moderate its erratic manifestations, we can quiet it. We will commence by giving this woman ten drops of dilute nitric acid thrice daily, in a little while we will order her a more generous diet, prescribing especially milk and eggs, interdicting stale bread (of which she eats a great deal), and coca shells (which she drinks), because she cannot digest the fats, this I know because the eructations or regurgitations are of an offensive acid character, butyric acid is set free.

We must also leave out starchy, saccharine, and all fermenting foods. Nutrition must be forced, she should have milk every three hours, eggs daily, and meat at every meal, and of meat she should have fresh beef, game and poultry (except veal and duck), fresh fish, no salt meat or salt fish of any kind. She should eat but little bread, substituting for it such vegetables as celery, lettuce, or spinach, those that are free from sugar or starch. I am in the habit of telling such patients to eat lettuce in the English fashion, that is, to take out the centre leaves and dip them in salt. If the patient can have cod liver oil, without its producing acid indigestion, it should be given in doses of one drachm in half an ounce of whiskey thrice daily. I say whiskey with reluctance, and would not order it at all if this woman were only eighteen, but at forty-nine there is not so much danger of establishing a bad habit A person at fifty years of age, who has led a temperate life, can take a little whiskey as food, as alcoholic food, with advantage, but it will do no good to one who has been a toper It is, when properly used, an admirable food, quickly oxydized, and it helps primary assimilation

Oxygen must also be ordered, not as "compound oxygen," the greatest imposition of the day, but oxygen as we have it in the open air I am frequently asked my opinion about "compound oxygen," and when I explain that the ordinary atmosphere is only compound oxygen my inquirers are amazed to think how foolish they have been to pay a big price for that which they could obtain for nothing Exercise should be enjoined just at the end of digestion, when the food is ready to be assimilated and requires an abundance of oxygen to complete the metamorphosis

Exercise should not be indulged in just after a full meal, for at that time the blood that exercise would call to the muscles or brain-work to the brain is required in the stomach to aid digestion If this woman will follow my advice she will be relieved entirely, and the demon that has haunted her for years will prove no demon at all, for there is here only a normal hypertrophy, such as we see in the blacksmith's arm from excessive use

ORIGINAL ARTICLES

SOME REMARKS ON THE MANAGEMENT OF PROTRACTED FIRST STAGE OF LABOR[1]

BY HENRY DAVIDSON FRY, M D,

OF WASHINGTON D C

I am led to select this subject for discussion chiefly because of my belief that the proper management of the first stage of labor is more neglected than any of the processes connected with the child-bearing act

Sufficient attention is given to the elucidation and treatment of all the conditions, natural and unnatural, that do and may arise during the progress of the subsequent stages The consequence is that the general practitioner is ever ready to lend assistance at such times, whilst in the first stage, supported by precept and habit he preserves a passive indifference, waiting, like Micawber, not "for something to turn up," but with equal patience *for the womb to open* During the weary hours that his patient is suffering these pains he seems content to limit his duties to the occasional examination of the case, and even this is done more for his own comfort than his patient's, the object being to form some idea when his services will be required

An explanation, in part, for such inactivity is thus given by Lusk[2] "There is an erroneous opinion that, so long as the membranes are unruptured, this condition (the first stage) may be allowed to go on indefinitely" To add to the prevalence of such a dangerous opinion so able an obstetric writer as Leishman[3] gives the following advice "And, even in cases where its duration is prolonged far beyond the average, this of itself is no excuse for interference, unless the general symptoms indicate that it is our duty to accelerate the labor by such means as are within our reach—a state of matters which is of rare occurrence" Practically the same statement regarding the trivial consequence of prolonged first stage is made by Playfair[4] and by Cazeau[5] In his opposition to this view Lusk[6] continues "There is nothing that requires more judgment in midwifery practice than to decide when the time has arrived at which delay is fraught with more danger than active interference For my own part, I believe that many fair lives are needlessly squandered because of excessive timidity begotten of imperfect obstetric teachings" Delay cannot be otherwise than fraught with more danger than active interference when that interference is in itself harmless The majority of the various remedies recommended for accelerating the dilatation of the os can do no injury unless most inappropriately employed The few that cannot be classed with these may be reserved until, as Leishman has said, "general symptoms indicate that it is our duty to accelerate the labor"

It is as unwise as inhuman to allow women to suffer the pains of the first stage of labor when protracted for hours beyond physiological limits The loss of sleep, the want of nourishment, the anxiety of protracted labor, and above all the nervous depression produced by pain, all these tend to exhaust the patient and prepare the way for uterine inertia Post-partum shock and hæmorrhage, septic infection, and least of all, a slow convalesence, are some of the *sequelæ* of protracted first stage An analysis of the histories of those labors which are terminated by instrumental interference will demonstrate that very many are preceded by slow dilatation of the os The happy issue of many a case of labor is dependent, I firmly believe, upon the appreciation of these facts and the result of timely interference exercised in the first stage as well as in later ones

At the meeting of the American Medical Association held in this city in the spring of 1884, Dr Lusk read a paper "On Sudden Death in Labor and Childbed" The following case furnished a theme for his subsequent remarks On the morning of January 1 he had been called to attend a young woman aged 23 years, who was suffering the pains of her first confinement The parts were very sensitive to the touch, the head presented, and the cervix was beginning to dilate He ascertained that labor pains had been recurring since the preceding afternoon, and that his patient had passed a sleepless night The head was low in the pelvic cavity, but labor dragged along so slowly that little progress had been made at eleven o'clock

The head was dilating the cervical canal without the formation of the bag of waters Dr Lusk administered sufficient chloroform to obtund the sensibility of the vagina, and lifted the head from contact with the cervical walls. The bag of waters then formed and dilatation rapidly followed. At about two o'clock in the afternoon forceps were applied and delivery effected without further trouble. Post-partum hæmorrhage was promptly arrested by a hot vaginal injection. Alarming symptoms developed, the wrist became pulseless, the extremities cold. A temporary improvement encouraged false hopes, and in four or five hours after delivery his patient was a corpse. Dr. Lusk then took up for consideration the various causes that may give rise to sudden death after labor. The symptoms of the entrance of air into the circulation, of thrombosis and embolism, and of nerve exhaustion and shock were carefully reviewed, and the unhappy termination of the case was attributed to the latter condition. The interesting paper was concluded by these significant words, "As the nervous organization of woman loses in powers of resistance as the penalty of a higher civilization and of artificial refinement, it becomes imperatively necessary for the physician to guard her from the dangers of excessive and too prolonged suffering. Especially I would raise my voice in warning against the current opinion that the length of the first stage of labor before the rupture of the membranes is a matter of indifference, a teaching which I believe has cost the lives of many women, in a few, death resulting from shock, in more, the exhausted condition in which the woman is left after childbirth rendering her an easy prey to the perils of the puerperal state."

---

[1] Read before the Medical Society of the District of Columbia January 13 1886

[2] Science and Art of Midwifery New York 1884 p 424

[3] System of Midwifery 1875 p 273

[4] System of Midwifery Phila 1880 pp 332 333

[5] Theory and Practice of Obstetrics Cazeau and Tarnier Phila, 1884 pp 605 606

[6] Ibid p 425

Journal of the American Medical Association Vol III No 16 p 427

Before offering in review some of the means at our command for accelerating dilatation of the os, I invite attention to a few facts connected with the mechanism of this stage of labor. During pregnancy we recognize the existence of two processes, first, the growth of a body to be expelled, and second, the growth of the organ which is to expel it. The fecundation of the ovule is followed by segmentation, and, in rapid order, the developmental changes of embryological life. With the beginning of fecundation the musculature of the uterus develops rapidly. The hard fibrous character of the uterine wall becomes replaced by a highly sensitive, soft, muscular structure. From the early months of gestation to the advent of labor this muscular organ is undergoing constant contraction and relaxation, as if impatient to expel the contents. As pregnancy progresses the contractions increase in strength, and often imperceptibly merge into true pains of labor. Several weeks preceding labor the uterine tumor with its contents settles into the pelvic brim or canal, and certain preparatory changes take place in the tissues of the cervix. They become softened and œdematous, and the canal is obliterated.

The first object to be accomplished by intermittent contractions of the womb is dilatation of the cervix. The muscular apparatus is much less developed here than at the fundus, it has fewer circular fibres, and is further weakened by an opening in its wall. The compression of the contents of the uterus, which is coincident with each contraction, causes this part to bulge because it offers less mechanical resistance. The lower segment of the uterus becomes softened and thinned, and the internal os is gradually dilated. Contractions of the longitudinal fibres of the cervix also tend to pull the os open. A similar action is possessed by the uterine ligaments when descent of the uterus favors their coming into play. Each contraction is accompanied by tension of the membranes stretched over the os, which, as the os dilates, become more and more convex. The support afforded the bag by atmospheric pressure being less than the intra-uterine pressure, the decidual membranes are slipped down and protruded into the vagina. The difference of the two forces increases as the os enlarges, and consequently the bag of waters forms more quickly after a certain degree of dilatation has occurred. The mechanism is similar to the action of cupping glasses, the rarefied atmosphere within the cup representing the intra-vaginal pressure. The same forces continued after rupture of the membranes give rise to the formation of the *caput succedaneum*. The protrusion of the bag with each uterine contraction furnishes an efficient hydrostatic wedge for aiding further dilatation of the opening.

If the presenting part of the fœtus be a favorable one, and no disproportion exists between it and the maternal passage, the lower segment of the uterine wall becomes closely applied and both engage within the pelvic canal. The best example of this is met with in head presentations, particulary in primiparous cases when the presenting part, enveloped by the uterine neck, is often observed nearly or quite down to the pelvic floor at the beginning of labor. Rupture of the sac now gives passage to the "forewaters," while the amniotic fluid surrounding the fœtal body is in great part retained. This condition, viz. the engagement of the presenting part and the lower segment of the uterus within the brim or canal, has an important bearing upon the question of artificial rupture of the membranes.

Having glanced at the mechanism by which dilatation of the os is effected, we are now prepared to formulate the conditions favoring a normal first stage. These are:

1. Regular intermittent contractions of the uterus, which, besides possessing the requisite degree of strength, must act in a line parallel to the axis of the pelvic brim. The latter condition is necessary in order that the force of the contractions may be made to impinge upon the tissues surrounding the os.
2. A softening and thinning of the structures of the cervix and lower uterine segment.
3. The formation of the bag of waters.
4. Descent of the uterus in order that the dilating influence of the sacro- and vesico-uterine ligaments may come into action.

Weak contractions of the uterus are witnessed in first labors occurring in very young or old subjects. Rapid child bearing and preexistent pathological conditions of the uterine structure are some of the influences leading to such a result. Feeble contractions are likewise dependent upon over distension of the uterine walls by excess of amniotic fluid or the presence of twins. Contractions, although strong, may be inefficient because irregular and spasmodic. They are generally short and cramp like in character, with little period of repose intervening. Often associated with these are mental emotions, nervous excitement, a filled bladder or loaded rectum.

Organic softening and thinning of the cervix may be prevented by pathological conditions of the tissues. Adhesions existing between the decidual and uterine membranes near the internal os may be the means of preventing the formation of the bag of waters. Paucity of amniotic fluid and the early engagement of the presenting part within the pelvic brim are additional obstacles to such formation.

Failure of descent of the uterus and its fixation in the axis of the pelvis arises from malformation of the pelvis, or from some disproportion between the diameters of the presenting part and pelvic brim, or from the axis of the uterus and that of the pelvic brim not being parallel.

Such a list, incomplete as it is, of the various conditions that may interfere with the physiological progress of the first stage of labor, conveys some idea of the complications to be overcome by treatment. It further teaches the importance of ascertaining the cause of delay in any given case before attempting a plan of action. No fixed rules are laid down to guide us. Individual experience and close observation will most likely enable us to detect the nature of the perturbating influences which retard dilatation and will point out the line of treatment most likely to meet the demands of the case. "Trifles light as air" appropriately used will succeed when powerful means may not only fail, but do harm if injudiciously employed. The following case illustrates this point:

I was called to see Mrs. P— at 5.30 A.M. of May 21, 1885. Labor pains had commenced the day before and had annoyed her at irregular intervals since. She had not considered it necessary to send for me until just before the hour mentioned, when, while sitting in a chair, a sudden gush of water saturated her clothing. She retired, and when I arrived, the pad upon which she was lying, which consisted of four thicknesses of a quilt, was wet to the rubber cloth beneath. Examination revealed the os dilated as large as a silver dollar, the head was presenting, *and the membranes were intact*. The vagina was moist, but no fluid came away during the examination. The pains had ceased with the appearance of the discharge. I directed her to stay in bed and to send for me on the recurrence of pain. Not having received any message I called about noon, and found the same condition of affairs existing. Two grains of opium, which were ordered to relieve her of irregular pains, restored quiet, she slept some, and was comfortable until midnight, when labor set in. About one o'clock another discharge of water occurred, and I saw her an hour later. The bag of waters was ruptured and the head was engaged in the upper part of the pelvic canal in the right occipito anterior position. The os was dilated as large as the rim of a tea cup, its margin was thinned and the superjacent tissue moist, soft, and dilatable. While verifying the position of the fœtus by means of abdominal palpation, it was discovered that the whole globular mass composed of the gravid uterus was deviated to the right of the median line. For the next half-hour, during which she was allowed to remain upon her back, strong contractions produced no appreciable change. She was directed to turn on her left side for the purpose of overcoming this uterine obliquity, and in ten minutes the head was at the vulva.

The proper course to pursue in this case was plainly manifested and promptly yielded its result. If the cause of delay had been misinterpreted and oxytocic remedies administered, or any inappropriate method adopted to hasten delivery, harm might have resulted; at any rate the above happy termination could not have been looked for. This was the patient's tenth confinement, and the preceding pregnancies had so distended and relaxed her abdominal parietes that sufficient support was not afforded to keep the gravid uterus in its proper position. The first discharge of fluid which occurred in such large amount twenty four hours before labor I should study under the head of hydrorrhœa gravidarum, a subject which has been worked up thoroughly by a fellow member of this Society—Dr. T. C. Smith. I would add that the expulsion of the offspring was followed by considerabe amniotic fluid.

Treatment.—The most important of the remedies at our command for accelerating the first stage of labor will be considered under three separate classes:

First. Pain stilling agents.

Second. Remedies employed to increase uterine action.

Third. Remedies applied directly to the os to assist its dilatation.

This division of the subject facilitates its study, but is open to the objection of inaccuracy. Remedies of the first class often increase uterine action, and any direct application of methods to the os most certainly do. In fact, much of the good effect attributed to the latter class doubtless owes its efficacy to increase of uterine action.

I. In the first class are placed opium chloral, and anæsthetics. The most signal benefit follows the employment of these agents in suitable cases. Most confidence can be placed in them when delay accompanies irregular and spasmodic pains, and when weak contractions are the result of depression and loss of rest from protracted suffering. It has been my lot to see dilatation of the os begin promptly, and labor soon completed after the administration of a few doses of chloral, when seventeen hours of delay had previously witnessed no progress of the first stage.

Opium must be given in full dose by mouth, by rectum, or by the hypodermatic injection of morphia, chloral by mouth or rectum. The administration of either of these is followed, as a rule, by one of two effects. There may occur the immediate conversion of the ineffectual pains into such as produce a favorable impression upon the unyielding os. Nervous excitement gives way to quiet, the duration of the pains is lengthened, and the intervals of repose are periods of recuperation.

The other effect is *rest*, that is, the cessation of uterine contraction for one, two or more hours, probably with sleep, and then the return of pain and satisfactory progress of dilatation. It is a common experience to witness the cervix relax and dilate during this period of repose Some writers, among them Playfair,[8] deny that chloral possesses this power to annul uterine action, and attribute the beneficial influence of the drug to the former of the two effects above mentioned On the contrary, I have distinctly seen such controlling influence follow its administration Only recently a case came under observation in which 40 grains, given in two doses, produced entire cessation of pain and caused sleep during the most part of the succeeding four hours At the end of that time regular and strong contractions set in, the labor, which had lingered all night, progressed rapidly, and in less than two hours the infant was born The os softened and dilated during the repose

Anæsthesia, particularly by chloroform, is, at times, the remedy *par excellence* The following history demonstrates the class of cases in which chloroform may be used with the best prospect of success Such labors usually occur in primiparæ, and in women of highly sensitive nervous organization

Case —On Sunday, at noon, Mrs N P , a primipara, was taken with labor pains which were short, sharp, and returned every four or five minutes At eight o'clock in the evening I found the following condition The head had descended almost to the floor of the pelvis and presented in the R O A position, the os was the size of a ten cent piece, and the membranes were drawn tightly over the opening during the pains The contractions were so frequent and painful I ordered 30 grains of chloral to be taken in two doses The effect was to compose her and cause drowsiness for awhile, but not to lengthen the intervals of the pains At 1 30 A M she became nervous and declared she could stand the suffering no longer She shrank from vaginal examinations in consequence of the painful condition of the parts, the genital canal was dry, the os thin and wiry at its border, and dilatation but little increased The hypodermatic injection of ¼ grain of morphia sulphate was given without any apparent result The pains continued to recur frequently, to last but a short time, and were accompanied by unusual suffering

3 A M —Examination with finger still caused excessive pain, the head was in contact with the perineum, and the os was thin and dilated the size of a twenty five cent piece The suffering was so great, and chloral and morphia having failed to bring relief, I determined to try the effect of the inhalation of chloroform It was magical She no longer complained of pain, the contractions increased in strength, they lasted longer and recurred less frequently As soon as one passed off she dozed until the next awakened her At no time did she inhale sufficient chloroform to produce unconsciousness, she could tell when the contraction reached its acme, and when it was declining

3 45 A M Vaginal examination caused less distress and the parts were moist More progress was made within this hour than had been the case during the preceding fourteen hours of suffering The bag of waters was formed and protruding, and the os was dilated to the size of a silver dollar Composure had taken the place of her nervous excitement In one hour and a half only half an ounce of chloroform had been administered

4 30 A M The strength and duration of the contractions were increased, mucus flowed from the vagina, and the os continued to dilate At 5 o'clock the chloroform was withheld for a time and then employed intermittingly until the end of labor

At 7 o'clock, four hours after commencing the use of chloroform, the child was born

II Remedies to Increase Uterine Action —Of this class I will refer briefly to electricity, the introduction of the soft bougie, and artificial rupture of the membranes The administration of ergot during the first stage justly finds little favor at the present day Quinine is highly recommended by some for its power of restoring strength to the weakened constructions Manual pressure, so successfully employed by Playfair, is more applicable to the expulsive stage

Attention is now being directed to the value of electricity in obstetrical practice, and from the published accounts of its action upon the gravid uterus excellent results may be expected to follow its use One of the most interesting articles that has been written upon the subject recently is from the pen of Dr W I Baird,[9] of Texas Among the indications for its use he states "That dilatation of the os is greatly facilitated, thereby shortening the labor in every stage " "This effect," he says, "I have constantly observed in all the cases which I have treated with the current, and it is easy to see that it follows as a consequence that, if the current will increase the force of the contractions of the longitudinal and oblique fibres of the uterus, the os will be more rapidly developed " His results were obtained by use of the faradic current, the positive pole being applied to the lumbo sacral region and the negative to the fundus uteri An opportunity was recently presented to make a fair test of its value, and the effect was very decided in increasing the force and efficiency of the contractions, but I am sorry to admit I did not witness the wonderful sedative influence of the current as described by Dr Baird

The introduction of a soft bougie between the uterus and the membranes is an efficient means of increasing feeble contractions It is best made use of when the membranes are intact, at any rate before the amniotic fluid is drained away

Warm vaginal injections not only soften the os and assist dilatation, but also increase uterine action By adding an antiseptic to the water they exert a two fold influence for good, and are particularly useful when, at the same time, other means are resorted to which require manipulation of the cervix

Artificial rupture of the membranes is undoubtedly the most frequently employed of all the means for increasing pains and accelerating the first stage of labor The procedure is by no means harmless When the presenting part of the child is closely applied to the lower segment of the uterus, and when the pains have pushed both down into the pelvic canal, it may be justifiable to rupture the bag, *pro*

---

[8] Ibid , pp 289 347

[9] American Journal of Obstetrics Vol xviii Nos iv, v and vii pp 337, 481, and 719

vided other means have been tried and failed It is particularly called for when weak contractions result from overdistension and when delay is caused by adhesions between the lower uterine wall and the decidual membranes, preventing the os from retracting over the presenting part It is wiser, under the circumstances, for the physician to hesitate before adopting a plan that favors laceration of the cervix, the immediate and remote evils of which are too well known More reprehensible is its performance when the os is high, and when the presenting part does not engage in the brim

III The last class embraces *means applied directly to the cervix to facilitate dilatation* Most important of these are Barnes' bags, manual dilatation, and efforts to correct displacement of the os, and to favor the formation of the bag of waters Lusk recently presented before the Obstetrical Society of New York a pair of forceps which he had designed for dilating the os This instrument differs from the narrow-bladed forceps of Taylor, which is intended to pass through a partly dilated cervix, and draw the head into the canal I will call attention only to a few points One is, the excellent result that often follows so simple a manœuvre as drawing a displaced os in the line of the axis of the pelvic canal Such a change places the part in the most favorable position to receive the force of the uterine contractions The most common condition calling for this interference is the backward displacement of the opening with the thinned anterior lip covering the presenting part The finger should be passed into the os, and the part drawn forwards and held in place until the malposition is corrected Lateral displacements require the same attention The abdominal bandage may be needed in a few of the foregoing cases to correct the position of the fundus, or the same result may be obtained by changing the decubitus of the patient Pushing up the anterior lip when caught between the presenting part and the symphysis pubis is a well recognized procedure

Valuable assistance can sometimes be rendered by making efforts to favor the formation of the bag of waters When failure is the result of paucity of amniotic fluid little, of course, can be done to remedy the difficulty When due to adhesion of the decidual and uterine membranes these must be broken up by sweeping the finger around the inner surface of the uterus as far as it can reach When the head is early engaged and prevents the fluid from passing to the bag, the presenting part must be raised and held until the pouch is felt

Having enumerated and classified the principal remedies employed for protracted first stage of labor, I will conclude by hoping that the members of the Society will discuss the question and give their views concerning the following points

1 How great are the dangers of protracted first stage of labor, and is it advisable to interfere?

2 What proportion of cases require such interference?

3 Individual experience regarding the most efficient remedies, and the indications for the use of each

---

OPERATION FOR CONGENITAL CATARACT IN TWENTY-FIFTH YEAR, VISION SLOWLY ESTABLISHED

BY JULIAN J CHISOLM, M D ,

PROFESSOR OF EYE AND EAR DISEASES IN THE UNIVERSITY OF MARYLAND
AND SURGEON IN CHIEF OF THE PRESBYTERIAN EAR AND EYE
CHARITY HOSPITAL OF BALTIMORE MD

That children are born blind with cataract is a matter of every day observation That these cataracts can be removed by absorption under surgical procedures is the experience of every ophthalmic surgeon and that infants who have been operated upon for cataract can, when old enough, learn to read with proper glasses, has long since been established by thousands of witnesses The acquisition of sight to those born blind is now, therefore, no novelty Experience has also taught the surgeon that if good sight is to be secured to those born blind with cataract, the operation for the removal of the obstruction must be done very early in life If the cloud in the pupil be allowed to remain for too long a time, during the growth of the child, the retina seems to be arrested in its development by the absence of its normal stimulus, strong light, and the needful sensitiveness of this membrane for good seeing is never acquired even when glasses have been carefully adjusted Very rarely is useful vision secured to adults who have remained blind throughout their entire growing life, and hence the case now reported of blindness to the age of 25 possesses peculiar interest

W B, aged 25, was brought to me in July, 1882, for cataract operation Soon after birth it was discovered that his pupils were not black but were of an ashy hue, which became the more conspicuous with his growth, and was finally diagnosed as congenital cataract When the blind child had attained two years of age his parents allowed an itinerant oculist to operate upon one of his eyes by the needle puncture He had promised to make the child see, but as iritis supervened and the pupil became closed, the operation proved a failure This accident discouraged the parents and they refused to allow the other eye to be operated upon When the boy attained a suitable age he was sent to the Virginia State Blind Asylum, and was there educated He was taught, among other things, to cane chairs, and when he arrived at manhood this became his daily occupation When 25 years of age, having heard what wonderful things were being done by modern surgery, the desire to see took possession of him, and with it came the hope that even he, blind as he had been from birth, might be made to see the forms which up to this time he had only known by feeling He sought the advice of a clerical friend, now the Assistant Bishop of the Episcopal Church in Virginia He brought him to my office and asked that the cataract be removed

I found the eye previously operated upon lost, with no light perception remaining The pupil was closed, the anterior chamber effaced, and the eye so disorganized by the former inflammation that there was nothing left of it but its name The other eye had good light perception, and barring the white pupil seemed well formed and promised some results from operation. I explained to him that the operation was not a difficult, dangerous nor painful one, and that his prospects for a successful extraction of the cataract were good, but that the retina may have lost nearly all of its sensitiveness, and that therefore he should not expect too much from the operative procedure. Under chloroform the lens was extracted through an upward iridectomy. No complications followed upon the operation. By the ninth day the wound had healed and the bandages were permanently removed. When examined the pupil was comparatively clear and the eye exhibited very little injection. There were a few opaque shreds of capsule in the pupil, but not enough to interfere with the functions of the eye if the retina and optic nerve were in good condition.

He returned to his home one month after the operation, sadly disappointed that he could not see. When asked what difference there was between his present condition and his former state one month ago, he said that light appeared to him very much intensified, and that he could now detect the shadow of any body between him and the light, but that he could not recognize outlines of any object whatever. Sad at heart he went back to his old trade, at which he had become quite skilled, and I heard of him six months afterward as being lead about, in the absence of useful sight to guide himself. I had put his case down as one from which no good was now to be expected, and therefore dismissed him from my mind.

Early in January, 1886, three and a half years after the operation, I was visited by the Bishop, who in the course of conversation asked me whether I had heard of the sight which my patient had finally secured. He told me that he usually spent a part of his summer vacation in the neighborhood where this patient resided, and as he had always taken the deepest interest in his welfare, made it a point to visit him annually and watch his progress. For the first year after the operation the improvement was not great, so that he could not trust himself alone. The definition of large objects seem to dawn upon him very slowly. It took his retina two years to acquire sufficient sensitiveness to detect large objects and to permit him to avoid them in moving about. After two years he could walk alone, and now rides horseback all over the country. On the last visit the Bishop was delighted to note a marked improvement. His vision had become sufficiently acute to detect comparatively small objects, and even the alphabet had been conquered, and the reading of very large type had been acquired. He had secured the aid of interested friends who were instructing him in reading. A book of large print, letters one fourth of an inch long, had been procured. In this, aided by a two-inch magnifying lens, he could read with some facility. It has taken him nearly four years to attain this degree of useful sight. This progress marks clearly the slow development of retinal sensibility, and from it we may expect that time will still further improve his vision.

I have not seen the patient since he left me for his home, 300 miles away from Baltimore, now nearly four years. The operation, as far as the cataract extraction went, was a success. Before he left me I could detect no abnormal changes in the fundus of the eye with the optical microscope. To what extent the peculiar functions of the retina had undergone development I had no means of determining. As he had no conception whatever of objects beyond what the handling of them would give him, I did not expect him to see or appreciate them immediately after the operation. If the acquisition of sight could be attained I knew that it would be of very slow development. Professional experience had taught us but little in this direction, and surgical reports were not rich enough in such material to give data upon which to build hope. The results of three years' development has put him further on the road to secure good vision than I had imagined possible.

I had previously operated upon a patient 22 years of age who had been brought up in a blind asylum. He could see to get about, but the presence of a zonal cataract in each eye from infancy did not permit him to see small objects. When the cataracts were removed after he had attained his majority his vision was so far improved that he then learned to to read, and eventually became a successful merchant. It took him nearly two years to acquire a facility to see coarse print, and he never exceeded *pica*, which is the largest type that printers use for the body of many books. No magnifying glass permitted him to recognize fine print. There was a great difference, however, in the amount of sight which these two patients started with. One had only light perception, the other already useful vision and the general recognition of all large objects.

Baltimore, February 2, 1886.

INFLAMMATION OF THE LINING MEMBRANE OF THE FALLOPIAN TUBE, WITH EXUDATION OF PUS OR PUROFIBRINOUS FLUIDS.

BY R. STANSBURY SUTTON, M.D., LL.D.,
OF PITTSBURGH, PA.

This disease is termed salpingitis, and like a bronchitis, it may be acute or chronic. The acute form is not distinguishable from an ordinary peri uterine inflammation. The chronic form may be recognized. In some cases the diagnosis is limited to certain periods in the history of the case, in other cases the symptoms may be so constant as to render it possible to make the diagnosis with considerable accuracy.

The causes of this disease have frequently been said to be limited to gonorrhœal infection. This is an error. It does arise in strumous women from the constant introduction into the uterus of instruments, whether by reason of the introduction of septic matter, or from mechanical violence, I am not sure. But it is more than probable that it arises from the introduction of septic matter. The entire gynecological practice of some seems to be limited to a single procedure, viz. the introduction of the uterine sound, and the *rationale* of the treatment is explained to the patient thus: "There are adhesions between your womb and bladder, or womb and rectum, and these must be broken up." Or "You have got a tumor in your womb, and it will be removed by making pressure on it in this way."

I have just now under my care four striking examples of this treatment persisted in to the production of salpingitis, unilateral, in one; chronic cellulitis and fixation in retroversion of the uterus in another; chronic invalidism in a third; and the fourth case was absolutely free from all disease, but had been gouged regularly for a supposed fibroid which never existed. The constant poking at the interior of a uterus with sounds will frequently produce an inflammatory condition of the lining membrane of the uterus and tubes as well as a general pelvic cellulitis. The older I grow, and the more experience I get, the more am I convinced that local treatment directed to the interior of the uterus instead of to the surrounding structures is entirely too much practised. I find scarcely any use of late years for the old Simpson's sound, sponge or laminaria tents; they lie about as relics of the past. Symptoms are no longer treated for diseases, and the uterine cavity is no longer made a chemical laboratory. The condition of the pelvic and abdominal viscera receives more attention, and less local treatment is required. Tonics, massage, rest, hot water, regulation of the bowels, a good diet, and an occasional application of iodine to the vault of the vagina will soon do away with a host of cases formerly treated with text-book punctiliousness. The cases requiring surgical treatment receive it promptly and with the loss only of enough time to prepare the case. I am sure that such a course is productive of less harm and of more good than the other.

An acute salpingitis recognized as a peri-uterine inflammation should be treated on the well established principles laid down by all authors.

The existence of chronic salpingitis is not always easy of recognition. Mr. Lawson Tait said to me in 1882, at his clinic in Birmingham, England, "Please examine that woman." I did so. He said, "What is that?" I replied "a case of chronic cellulitis." "No," said he, "it is a case of salpingitis, pus in the tubes." I now for the first time knew that I had seen the disease before and had not recognized it. I have seen many cases since, some operated upon by Mr. Tait, and I do not yet feel competent to always recognize the condition. When the symptoms are well marked, and the patient is a married woman or a prostitute, it is easier to recognize it than when the patient is unmarried and above all suspicion—because *sexual intercourse in chronic salpingitis is well nigh unendurable*. Occasionally the muco pus or pus and serum will escape from the tubes through the uterus and relief follows; if the tube fills again the suffering returns. I have seen this occur. Bimanual palpation will reveal a fulness on one or both sides of the pelvis. This fulness or swelling is not solid and painless, but semi elastic and painful. The swelling may be well off on the sides or be directly behind the uterus itself. Other structures than the distended tubes are likely to be involved in the swelling, and if adhesions have formed the mass is fixed.

Pain, reflex in character, is usually complained of in one or both groins, in the back, in the bladder or down the legs. Frequent attacks of pelvic peritonitis occur, lasting eight or ten days. During these the patient cannot walk about without much suffering, and there is an acceleration of pulse and temperature. Pressure bimanually produces a feeling of faintness, and occasionally reflex nervous phenomena approaching hysteria are present. The patients lack color, and bear the evidence in their faces of suffering. One patient often complained of being "so stiff as to be scarcely able to walk." In all of my own cases I have observed that the menstrual flow was disturbed, being profuse and lasting beyond the time, and finishing up with a leucorrhœal discharge sufficient to annoy the patients. In one of them the tube was now and then emptied through the uterus. There was no mistake about this, for I finally removed the tube when it was full of pus. The case was a very interesting one. Twice I postponed operating on account of a subsidence of the mass in the pelvis. The patient insisted that she had for several days observed a flow of matter from the vagina. Finally I was called to see her when she was confined to bed with a severe menorrhagia, and I felt the mass unusually large, tense and painful. As soon as I got her cleared up she entered my private hospital and I operated upon her.

Miss ——— has a strumous constitution, pain in right groin and back, stiffness of thighs, is pale, tongue is heavily furred, is slightly hysterical, has menorrhagia. On local examination, a semi-elastic, painful swelling exists in the pelvis to the right of the uterus. It has come and disappeared, to my personal knowledge, several times in the last six months. In a good light, under Sims's speculum, a little pus is found oozing from the external os uteri. On January 9 she was put on the operating table, etherized by my head nurse, and, Dr. Stone assisting me, I opened her abdomen by a two and a half inch incision, and removed her right ovary and Fallopian tube, the latter full of pus. Her temperature never exceeded 99.5° F. after operation, was normal on the fourth day, and remained so; wound healed, as all my abdominal wounds do, by first intention.

It may be interesting to some to know that no carbolic acid or other chemical touched this patient until the wound was closed, when iodoform gauze was placed over it. The sutures were boiled in clear water, boiling water was poured over the instruments, and boiled water was used for sponges.

MEDICAL PROGRESS.

Exploration of the Uterine Cavity in Cases of Menorrhagia.—At the meeting of the British Gynæcological Society on December 9, Dr. Arthur W. Edis read a paper on this subject. The author desired to draw attention to the urgent necessity of this proceeding, when dealing with cases of severe persistent or recurrent uterine hæmorrhage. The subject was one of great interest, and often one of great anxiety to the practitioner. There was a tendency to treat metrorrhagia as if it were a special disease, in place of regarding it merely as a symptom of many and various conditions A correct diagnosis was the first and most important element of successful treatment, which otherwise was mere guess work Speaking generally, there was almost invariably some local cause when the hæmorrhage was really severe Cardiac, hepatic, or renal disease might be present as a complication, or independently, and should always be taken into consideration Uterine hæmorrhage might be aggravated by the injudicious use of alcoholic stimulants, more especially was this the case about the time of the menopause The author had repeatedly witnessed cases where the mere abstention from alcohol had been sufficient to arrest a profuse hæmorrhage, which had been going on for months, and threatened even the patient's life In attempting to form a rational diagnosis, it was of great importance to get a careful and exact history of the details of the case Before proceeding to local investigation, the heart, lungs, liver, and other organs, should be carefully examined, and inquiry made into the habits of the patient A careful pelvic exploration should follow Then, if after consideration of all the facts of the case, the presumption were, every thing else being excluded, that there was some intra uterine complication, the practitioner was not justified in allowing the patient to go on bleeding indefinitely without giving her the benefit of further assistance The author, in general, effected dilatation by dividing the cervix with the metrotome or scissors, either alone, or in conjunction with the employment of tents or other dilators It was advisable, after operation, to irrigate with some appropriate antiseptic lotion, morning and evening, for a few days In cases of persistent hæmorrhage, due to retention of the placenta, following a miscarriage, the cervix generally remained sufficiently patulous, or was so readily dilatable, that no difficulty was experienced Where, however, only a small portion of the placenta had been retained, and the case allowed to go on for several successive weeks or even months, the cervix might be found so contracted, as to necessitate the introduction of laminaria tents over night In such cases, incision should never be resorted to, this method being reserved exclusively for cases of small fibroid or fibroid polypi in the interior of the uterus The author related several interesting cases to exemplify his meaning, and to show that, until the cavity of the uterus had been explored, a correct opinion could not be formed as to what method of treatment should be adopted He would lay stress upon the importance of dilating the cervix and exploring the interior of the uterus in all cases where hæmorrhage from the organ persisted unnaturally, and where the ordinary medicinal agents failed in affording relief, and there was no evidence of any condition external to the uterus sufficient to explain the persistence of hæmorrhage —Dr Aveling had observed that in cases requiring dilatation where something existed in the uterus capable of being removed, the cervical canal was either dilated or dilatable, this peculiarity had been noticed by Harvey In these cases, he preferred to use his own dilators Where the os was rigid and contracted, a more gradual method was better —Dr Routh believed that Dr Edis's paper was eminently practical, but he took exception to one or two points As to rapid dilatation, of the uterus, it did not always succeed when the uterus was rigid, and after all it was not a rapid, but a long and tedious process requiring an anæsthetic He preferred the sea tangle tents used with proper precautions, and always collected and prepared his own In regard to those cases of metrorrhagia in which nothing could be found after exploration, it should be remembered that an ulcerated or excoriated condition of the mucous membrane need not be restricted to the os or external portion of the cervix, but might extend up the uterine cavity It was quite in keeping to suppose that a congested state of the liver would have the same effect on the uterine mucous membrane as was the case in piles, causing them to bleed and enlarge The last objection he could take was to the incision of the cervix The danger to the patient from septic poisoning was greatly increased by such a measure

Dr Barnes thought no law in therapeutics more clear than that which dictated direct examination of an organ at fault if it could be effected The endeavor to do so was made, in the case of other organs, by percussion and auscultation The uterus offered the incontestable advantage of being directly accessible A narrow condition of the os externum was a frequent factor in cases of hæmorrhage Great benefit was often derived from simply enlarging this opening by a strictly limited incision The immediate effect was to relieve local engorgement It also afforded a ready escape for imprisoned blood-clots and mucus, and gave free access for exploration and the application of topical remedies It was also useful in many cases of intra uterine polypus and fibro myoma of the body of the uterus —Dr Thomas Savage found Hegar's dilators to be very unsatisfactory Laminaria tents were much more efficient, but were sometimes followed by disastrous consequences In several cases in which he had suspected a portion of the ovum to be left behind, he had thoroughly swabbed out the uterine cavity with pure carbolic acid, and found that such a course would often prove sufficient for cure —Dr Bantock was compelled to dissent from Dr Edis on one or two minor matters He did not approve of incising the internal os after partial dilatation, for the purpose of removing a small fibroid tumor, because it would be impossible to control the subsequent extension of the laceration of the divided tissues consequent on the forcible extraction of such a hard body as a fibroid tumor He had met with cases exactly corresponding by those narrated by Dr Edis, and it was quite easy for him to support his views He thought it was a mistake to mix glycerine with iodine or carbolic acid when the full effects of either remedy were desired, for in both instances the caustic effect was in this way reduced to a minimum, if not wholly removed Especially was this the case with carbolic acid He was not prepared to assent to the doctrine that a cervix which was the subject of even extensive disease of a non malignant character, but the result of chronic catarrh, etc , should not be subjected to dilatation These were just the cases in which he obtained the most satisfactory results from dilatation and the subsequent daily introduction of a stripe of lint saturated with glycerine for ten to fourteen days —Mr Lawson Tait considered the use of sponge-tents to be, of all the methods of dilatation, the most dangerous, and had long since given them up Hegar's dilators he considered extremely risky, and their employment was as exhausting for the operator as for the patient —*British Medical Journal*, Jan 16, 1886

Palpation of the Pelvic Organs —Dr B S Schultze, of Jena, has recently published (*Centralbl fur Gynak* , Oct 24), an original communication on bimanual palpation of the pelvic viscera He had already noted ("Ueber Palpation der Becken," *Jen Zeitschr fur Med und Naturw* , 1870, v , p 113) that the contracting and relaxing psoas muscle, along the brim of the pelvis, was an excellent guide to the fingers engaged in detecting the position of the ovary in the bimanual method External pressure along the same part of this muscle will often, in cases of chronic oophoritis, or complicated parametritis, cause severe pain, especially when the hand passes over the ovarian vessels and nerves as they cross over the pelvic brim [*See* reporter's note below, with regard to pressure on the obturator nerve] When the psoas is kept in a state of clonic spasm, through apprehension of pain or through faulty position of the lower extremities, it may readily be taken for a swelling, the result of pelvic inflammation As long as the psoas remains relaxed it cannot readily be distinguished by the hand placed upon the iliac fossa, but the pelvic brim can be felt through it When, however, the patient bends her thigh, the brim cannot be felt through the contracting muscle, which becomes very evident to the touch, and is distinctly tender

Dr Schultze finds that two muscles are to be detected on careful vaginal palpation, and to be taken into account as valuable guides to other structures These are the obturator internus and the pyriformis [The sphincter vaginæ and levator ani are easy to detect The anterior part of the latter, when in active contraction, is often mistaken for the former, which lies below it, separated sometimes by a distinct groove The tendinous arch, whence part of the levator ani takes its origin, can be felt under the lateral part of the vagina, and, by passing the finger forwards towards the anterior bony origin of the muscle, behind the body of the os pubis, the obturator gland can be detected if it be enlarged or inflamed, as in some cases of pelvis cellulitis and gonorrhœa Vaginismus is very frequently, we find, caused by painful contraction of the levatores ani in cases of fissure of the anus or inflamed hæmorrhoids —*Rep*] The obturator internus, Dr Schultze states, is a muscle generally well developed, and its movements can be felt through the vaginal walls if the patient rotate the corresponding leg outwards Its contraction becomes particularly evident during extension and adduction of the thigh, when not only its origin around the obturator foramen can be defined, but also the portion lying further back towards the sciatic notch Pressure on the contracting muscle seldom causes pain, but pressure on the obturator nerve produces sharp crampy pains, radiating to the thigh along the course of the nerve [This, if misunderstood, may be taken to be symptomatic of some acute inflammatory process in the pelvic cavity A thorough exploration of the vagina with the finger, in a case of suspected uterine disease, is very likely to involve pressure on the nerve, and this may become a source of fallacy Pressure on the ovarian plexus must also cause pain even in health, and thus the tenderness is not necessarily a proof (*vide supra*) of chronic oophoritis —*Rep*]

The pyriformis is difficult to detect by vaginal palpation in subjects where the vagina is long, and the pelvis deep It can easily be touched when the pelvis is shallow and the vagina broad, or in women of diminutive proportions When the uterus is high up, as in advanced pregnancy, the finger can easily reach the upper border of the muscle The pyriformis is, according to the evidence of palpation, very irregularly developed in different patients, and it is not so evidently set in action as the obturator, during active rotation outwards of the lower extremity On the other hand, in many cases it remains in continual contraction, especially when the patient lies in an uncomfortable position, or is in a state of alarm Pressure on the contracting pyriformis is often intensely painful, possibly, ("vielleicht," *evidently*, might be said with full confidence —*Rep*) through transmission of the pressure to the sacral plexus Through these peculiarities the pyriformis may become a prominent source of fallacy Dr Schultze, a few years ago, examined a very corpulent patient suffering from chronic metritis and parametritis He took the two contracted pyriformes for the ovaries fixed to the back of the pelvis

When both the pyriformes and the obturatores interni are set in action, the bulging of the obturators is most prominent a little behind the middle point of the foramen ovale As each obturator bulges but little, there is not much chance of its being taken for a tumor or a collection of inflammatory deposit The most projecting part of the pyriformis in full contraction is much more evident to the touch, it stands out three quarters of an inch or more from the anterior surface of the sacrum The inner borders of the two pyriformes in full contraction lie over an inch apart, so that two fingers can be pushed between them in vaginal palpation The separate bands of fibres can be detected as they arise from the sacrum between the sacral nerves, provided that the muscle be set in action whilst the finger presses in the right direction If the patient, lying in an easy attitude, have rotated the lower extremity outwards without setting the pyriformes in action, she should be told to hold the thigh stiff This will set all the femoral muscles in action, and the pyriformes may then be distinctly felt This will be sufficient to distinguish the muscles in question from a morbid growth or deposit —*London Medical Record*, January 15, 1886

Nutrient Suppositories —A case was related by Mr Godlee, for himself and Dr Barlow, at the last meeting of the Clinical Society, in which the advantage to be derived from nutrient suppositories was well exhibited The patient, as will be seen from a perusal of our report of the meeting, suffered from typhlitis Mr Godlee opened the abscess cavity, and allowed a large quantity of fœtid pus to escape The patient eventually quite recovered, without any palpable evidence of the thick bands of inflammatory material which are so troublesome in many cases treated on expectant methods, and had since had no sign in any way of any trouble whatsoever about the cæcum Dr Barlow, speaking of the diatetic treatment after the operation, remarked "that in this case it was especially desirable to keep the stomach and intestinal tract at absolute rest For many days, therefore, the very minimum of food, namely, a little barley-water, was given by the stomach, and the patient was fed by the rectum The thirst was found to be entirely relieved by enemata of three quarters of a pint of water, which were in all cases absorbed With regard to rectal alimentation, it is often observed that after two or three days the rectum becomes intolerant of nutrient enemata To avoid this, food was given in form of digestive suppositories Of these, two very convenient forms were made The first was made by diluting a good meat extract with water, and peptonizing it with Bullock's pepsin, neutralizing, and then concentrating, to a soft paste Cacao butter was then added in fine shavings, and intimately mixed with one-third of its weight of the peptonized meat-extract, and rolled into cones weighing 100 grains The second was made by peptonizing milk with pancreatic solution, boiling and concentrating to a paste, mixing and dividing as in the first case Peptonized milk being now sold in a concentrated form, it may be used instead of ordinary milk, which saves much time and trouble The suppositories were certainly absorbed, and kept the patient going for several days One was introduced about every three hours His tongue became very dry, after a time he was given some pieces of underdone chop, which he was allowed to chew and to swallow the juice derived therefrom, but not the fibre Besides maintaining his nutrition fairly, the patient, who was rather an irritable, querulous subject, was satisfied and comfortable, and the advantage in keeping his abdomen quite quiescent was very great indeed" If other cases should confirm the favorable impression as to the advantages to be derived from this method of feeding, when contrasted with the failure which in a few days generally results from the attempt to sustain life by nutrient enemata, as the rectum generally soon becomes intolerant of them, there will doubtless be found a wide use for these suppositories in the very large class of cases in which the stomach requires to be kept at rest Those who employ them may find, too, that the liquid which the system requires daily may be in some cases administered by the stomach, this would, one might suppose, tend still less to the disturbance of the lower bowel, and leave it still more at rest to digest and absorb the suppositories alone —*British Medical Journal*, December 19, 1885

TRANSPLANTATION OF BONE —DR FERRARI, (*El Siglo Medico*, Nov 22, 1885,) arrives at the following conclusions 1 Pieces of bone inserted in the diaphyses of long bones may become completely united to them, and continue to live 2 They not only continue to live, but also grow 3 The insertion of bone gives results in whatever position the piece of bone is applied 4 The re-union or grafting takes place by a true vascularisation, which forms between the piece inserted and that to which it is applied 5 Around the piece inserted, a bony, periosteal, and medullary callus is formed 6 As in a fracture, this callus has only a temporary vitality 7 After the lapse of a certain time, the periosteal and medullary callus is reabsorbed, and the engrafted bone is only to be recognized by its greater vascularity 8 The grafting takes place whether the piece inserted be completely adapted to the margin of the wounded bone or not, but in the latter case a longer time is required for union 9 For successful insertion a rigorous antisepsis is necessary 10 A favorable result is obtained even when the smallest pieces are inserted 11 In the case of insertion of small pieces of bone, if partial suppuration of the wound occur, some small pieces may yet adhere if the suppuration do not extend to the parts of the bone inserted which touch the medulla 12 For the complete success of the insertion, apart from antiseptic medication, moderate pressure must be employed to maintain contact between the medulla and the piece of bone transplanted —*London Medical Record*, January 15, 1886

ALBUMINOMETRY AND ESLACH'S TUBES —MR J A BLOMFIELD says that the usual method for the quantitative determination of albumen in the urine in the course of clinical work must be regarded as unsatisfactory It consists generally in boiling a test-tube about half filled with the urine, allowing the coagulated albumen to subside, and then getting by sight a rough estimate of the proportion of the albumen to the amount of urine employed There is a method used in many of the French hospitals which yields results possessed of numeric accuracy, and which serves to give a good idea of the actual amount of albumen in the urine The method was devised by Dr Esbach, and consists in the precipitation of the albumen by means of picric acid After standing twenty four hours, the precipitated albumen reaches a certain height in the tube, and it is according to height to which it reaches that the amount of albumen is determined The tube is empirically graduated in such a way that the number to which the precipitate reaches gives directly the grammes of albumen per litre of urine The reagent for precipitation is made by dissolving 10 grammes of picric acid and 20 grammes of citric acid in 800 or 900 c c of boiling water, and then adding sufficient water to make one litre Urine is poured into the test-tube up to a certain mark, the reagent added up to another mark, and then the tube is inverted about a dozen times to mingle well the contents, and placed in the vertical position for twenty-four hours, when the height to which the subsided precipitate has reached gives the grammes of albumen per litre —*The Lancet*, Jan 23, 1886

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE $5.00
SINGLE COPIES 10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address,

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, FEBRUARY 13, 1886.

"OPERATIVE SURGERY OF THE BRAIN."

Such is the title of a most exhaustive paper read by DR. JOHN B. ROBERTS, of Philadelphia, before the last meeting of the American Surgical Association. The paper, which has been printed in book form, makes an octavo volume of eighty pages, and is divided into three chapters, which deal respectively with the "Principles of Cerebral Surgery," "Cerebral Localization," and the "Operative Treatment of Cerebral Lesions."

The consideration of the principles of cerebral surgery is taken up under a number of propositions, the first of which is that "the complexus of symptoms called 'compression of the brain,' is due not so much to displacing pressure exerted on the brain substance as it is to some form or degree of intracranial inflammation." We must agree with the author that too much has been made of "compression of the brain," and to a great extent with Hutchinson in saying that "compression of the brain from depressed fragments of bone is an imaginary condition." Dr. Roberts thinks that it would be well if traumatic "compression of the brain" were always translated "inflammation of the brain," and if the profession were taught to believe that it was due to irritation of the periphery of the brain from traumatic causes. The second proposition is that "The conversion of a closed (simple) fracture of the cranium into an open (compound) fracture by incision of the scalp is, with the improved methods of treating wounds, attended with very little risk of life." It must surely be admitted that so long as the cranial fracture is closed the surgeon must be to a great extent in the dark as to its precise character, and it is in this respect that a simple fracture of the cranium differs from every other fracture. "Uncertainty as to the character of a cranial lesion is more dangerous to health and life than the conversion of a closed into an open fracture of the skull, because observation has taught the profession that open cranial fractures do not resemble in fatality similar open fractures of long bones." This argument finds strong support in the fourth proposition, that in the majority of cranial fractures the inner table is more extensively shattered and splintered than the outer. The question, then, resolves itself into one of correct diagnosis. We must learn the character of the lesion, and then we are in a position to apply the surgical expedients necessary, and since the day of antiseptic surgery restoration to health is more probable than improbable even with the complication due to the incision.

The third proposition is that "The removal of portions of the cranium by the trephine or other cutting is, if properly done, attended with but little more risk to life than amputation of a finger through the metacarpal bone." Of the 115 cases of trephining collected by Amidon there were only four deaths which could be attributed to the operation. Dr. Briggs has probably performed the operation as often as any man in America, and it is his opinion that it is one of the safest of the capital operations. The risk would be still further diminished, probably, if surgeons were to confine themselves to the conical trephine or the burr of the dental engine, and throw away the mallet and chisel. We have already said that the fourth proposition is that the inner table is usually more extensively shattered and splintered than the outer table. This has been shown by experimental fractures produced in the dissecting room and by observation of cases in private practice, and it is simply in accordance with a well-known mechanical law. It is easily seen, then, that the great danger is from inflammation set up by the depressed fragments of bone, and not from compression. As regards the fifth proposition, that "perforation of the cranium is to be adopted as an exploratory measure almost as often as it is demanded for therapeutic reasons," there must necessarily be much difference of opinion, but as in the case of laparotomy for diagnosis if the surgeon cannot see his way without perforating the cranium the surgical reasons seem to be on the side of exploration. The risks of obscure knowledge are usually greater than those of divided scalp and perforated bone, and the earlier the exploration the less the risks. Comment upon the sixth proposition, that "Drainage is more essential in wounds of the brain than in wounds of other structures," seem scarcely necessary, since, in view of recent papers and cases, the proposition seems almost self-evident, as does the seventh that "Many regions of the cerebral hemispheres of man may be incised with comparative impunity." We are sure also that those who have read the reports of the cases of Bull, Parkes, Hopkins Sands, Brinton and Nancrede will agree that "Accidental or operative injuries to the cerebral membranes, meningeal arteries or venous sinuses, should be treated as are similar lesions of similar structures in other localities." And as regards the ninth and last proposition, that "The results of cerebral localization are more necessary to the conscientious surgeon than to the neurologist," very little consideration will show that it is true, and that as a rule surgeons do not pay sufficient attention to the subject. When the neurologist is wanted to give an opinion in the matter the necessity is not so pressing that one or two days will make much difference, but with the surgeon the opinion must be formed immediately. An operation is or is not necessary, and if necessary it should be done at once. And for those who desire to make a study of this subject, we do not know where a better account of it can be found than in the second chapter of the valuable monograph under consideration.

Passing over the second chapter, which deals exclusively with cerebral localization and contains tables of "indications in traumatic cases," of "contra-indications," of "points for opening the cranium when operation is indicated," and of "more uncertain localizations," we may now consider the third chapter—"Operative Treatment of Cerebral Lesions"—in which the principles laid down in the first chapter are applied to the treatment of (a) cranial fractures, (b) intracranial hæmorrhage, (c) intracranial suppuration, (d) epilepsy and (e) insanity following cranial injury, and (f) cerebral tumor. In discussing the treatment of cranial fractures Dr. Roberts asks four questions: 1. What conditions demand incision of the scalp? 2. What conditions render incision of the scalp unjustifiable? 3. What conditions demand perforation of the skull? 4. What conditions render perforation unjustifiable? These questions are answered in a tabulated statement. In cases of *closed fissured fractures* he would not operate if there be no evident depression and no brain symptoms, but he would incise the scalp and trephine with brain symptoms with or without evident depression. With evident depression and no brain symptoms he would incise the scalp and possibly trephine. He would be inclined to trephine if the depression was marked, or the fissures sufficiently multiple to approach the character of a comminuted fracture. In cases of *closed comminuted fractures* he would trephine with evident depression with or without brain symptoms, and with brain symptoms without evident depression. With no evident depression and no brain symptoms he would incise and probably trephine. (He would trephine unless the comminution was inconsiderable.)

With *open fissured fractures* he would trephine with brain symptoms with or without evident depression, with neither evident depression nor brain symptoms no operation should be performed, while with evident depression and no brain symptoms he would possibly trephine. (He would be inclined to trephine if the depression was marked, or the fissures sufficiently multiple to approach the character of a comminuted fracture.) In cases of *open comminuted fractures* he would trephine except when there is neither evident depression nor brain symptoms, when the operation would be performed unless the comminution was inconsiderable. Punctured and gunshot fractures always demand operation. It should be remembered that when operations for fractures of the skull are demanded they should be performed immediately or within a few hours. The risk to life is enormously increased by waiting to see if the patient may not get along very well without an operation. But whether the operation be performed or not all cases, says Dr. Roberts, should be treated as cases of incipient inflammation of the brain (meninges?).

When is perforation of the skull, in order to remove a clot and secure bleeding vessels, justifiable? An operation says our author, is contra-indicated in cases of intracranial bleeding that do not present the symptoms which are believed to be produced by accumulation of blood in either the cavity of the arachnoid or the space between the skull and the dura mater. If localized hæmorrhage within the arachnoid be reasonably ascertained, he considers trephining justifiable. When the disc of bone has been removed the bluish and non pulsatile dura will probably bulge into the opening, and should be incised to allow the blood to escape. In some cases, however, this bulging will not occur until many hours after the injury. Gradually increasing brain symptoms, after injury to the head, "especially if there has been a period of return to consciousness after shock of traumatism, suggest the occurrence of intracranial bleeding from meningeal vessels," even should no fracture or depression of bone be detected. Operation is especially indicated if the localizing symptoms point to no other region of the cortex and if the symptoms are such as render cerebral laceration improbable. "A very short interval of immunity (from head symptoms after traumatism) indicates rapidly flowing hæmorrhage and demands early operation, with probable ligation of the middle meningeal artery or one of its large branches, or ligation or compression of a sinus It must be remembered also that compression symptoms, coming on immediately or quite soon after depressed cranial fracture, are very often due to the subcranial clot rather than the depressed cone Removal or elevation of bone is often needed more for liberation of blood-clot and control of hæmorrhage than for deformity in the bony outline"

Mr Charters Symonds reported a very interesting case of laceration of the middle meningeal artery before the Clinical Society of London, on October 9 The patient fell on his head, and soon became completely insensible Mr Symonds trephined on account of hemiplegia and deepening coma A pulsating clot was removed, and hæmorrhage was profuse In order to reach the laceration a great deal of bone was removed Two lacerations of the vessel were found, one of which was closed by over-running the vessel with fine gut, and the other by dividing the vessel and twisting both ends Hæmorrhage still continued, and was arrested after the bone had been incised to the base, by under running the artery with a piece of dura mater, making traction on the ligature carried out of the wound, and by carrying a pair of torsion forceps down as far as possible and giving half a twist The patient died fifty hours after the accident, but death could not be attributed to the operation

Of the treatment of intracranial suppuration we can only say that if the surgeon can locate the seat of suppuration he should operate and evacuate the pus, if he cannot locate it he should hunt for it, taking care that the aspirating needle be not thrust too deeply towards the medulla and base of the brain The case reported by Nancrede to the American Surgical Association, in 1884, shows that it is never to late to seek for pus Of Dr Robert's remarks on trephining for epilepsy, insanity and cerebral tumors want of space prevents our saying anything We set out with the intention of calling attention to the more noticeable features of his exceedingly valuable and masterly monograph, and have exceeded our limits He is to be congratulated that he has been able to compress so much information, and so much good surgical reasoning into so small a book—for it is one to be studied, and studied hard by every-one who may possibly have to deal with an injury of the skull or brain, and we must regard the operation as both justifiable and demanded

HYPODERMATIC MEDICATION

It is thirty years since Dr Alexander Wood, of Edinburgh, introduced to the medical profession the subcutaneous method of administering remedies The entire following of Æsculapius may be said to be armed with hypodermic syringes Yet it is doubtful if the average practitioner, as a rule, uses this instrument for the administration of anything except morphine Again, it is probably safe to assume that too great recklessness is often shown in the use of this mode of giving this remedy It is not always easy to substantiate the suspicion that a patient has succumbed to an overdose of morphine thrown under the skin, whereas it is a very easy thing to entertain and even express such a suspicion This is shown by the frequency with which the laity whispers the account of some case in which Dr ——— gave Mrs ——— a dose of morphine hypodermatically, when she went into a heavy sleep and never awoke Doubtless many of such instances are examples of *post hoc, propter hoc* Yet it is only too true that some of the patients thus treated have been sacrificed However exceptional death from the subcutaneous administration of morphine may be the mere fact that such an untoward result is possible should lead physicians to err, if err they must, on the side of caution

The subject of "Hypodermic or Subcutaneous Medication" was discussed at the fifty-third annual meeting of the British Medical Association, at Cardiff, last year As the two questions, concerning the range of its employment and the extremes of the doses regarded as safe, were considered, it may be well to give the readers of THE JOURNAL a summary of the ideas there presented The discussion was opened by Dr Talfourd Jones in the Section of Pharmacology and Therapeutics He would not limit hypodermatic medication to morphine by any means, but would recommend all practitioners to carry appropriate solutions of atropine, apomorphine, and a combined solution of morphia and atropine in the proportion of twenty to one There can be no doubt that given subcutaneously, morphine acts more promptly, certainly, and with fewer disagreeable after-effects than by the stomach Moreover, its effect is not merely a general one, but in addition it exerts a local anodyne power, which is marked and often of great service

In this respect Talfourd Jones is a disciple of Alexander Wood, not of Hunter He believes that in curing neuralgiæ, such as sciatica, brachialgia, trigeminal neuralgia, etc, it is far more efficacious to inject the narcotic at or near the seat of pain than at some remote part. He cites cases in support of this position of which space forbids the repetition here. He is of the opinion that there should be a definite and uniform dosage established for this powerful agent. Lawson thought the initial dose should be $\frac{1}{6}$ of a grain, but Jones has seen very alarming effects follow that amount. There are many conditions that must govern the size of the dose in each individual case, such as the bodily weight, the age, idiosyncrasy, and the intensity of the pain or gravity of the condition which calls for the hypodermatic use of the remedy. He would suggest that for an adult female the initial dose of morphine by this method should be $\frac{1}{10}$ gr., while for a grown male $\frac{1}{8}$ might be employed. He would never give morphine subcutaneously to children, if possible to avoid it, while to one under the age of 5 years it is never admissible.

Jones employs and earnestly recommends a solution of the acetate of definite known strength. For sixteen years he has used a solution always made in the same way and of the same strength. The salt used should be fresh. "Procure a stoppered bottle that holds exactly one fluid ounce. Half fill this with water, which I never use distilled, then put into the bottle 40 grains of acetate of morphine and drop into it exactly 4 minims of acetic acid. Shake and the salt will instantly dissolve. Then fill the bottle with water. The resulting solution will be pale and clear. Such a solution, if properly kept, will not in six months throw down more than a fraction of a grain of the acetate. It will perhaps become darker in color, but this is immaterial." It should be kept away from the light. It is much stronger than the solutions commonly employed in this country, 12 minims representing 1 grain of the drug. Great care has to be taken in the measurement of so strong a solution, and unless syringes are used the pistons of which are provided with a nut, there would seem to be a greater likelihood of accidents. Moreover, the acetate is said to contain 10 per cent. more morphine than does the sulphate.

The reader next considered atropia. He advised its employment hypodermatically often because of its unrivaled power over muscular spasm, as in hepatic, renal and intestinal colic. It is used as an anodyne and antispasmodic, as an anhydrotic, as a respiratory and cardiac stimulant and as an antidote to opium narcosis. He advised a solution of the strength of 2 grains to the ounce of water, and of this the dose is from 1 to 6 minims. Having considered and recommended these remedies separately, he yet desired to endorse most emphatically their combined administration in the proportion of 1 to 20. Indeed, he rarely employs morphine alone, except in certain cases in which it is desirable to lessen the vigor of the respiration. In painful thoracic diseases, as pleurisy, it is well to leave out the atropine, since its stimulation of the respiratory act would be likely to aggravate the suffering.

In other cases he would use the combined solution, on account of its certainly modifying the unpleasant after effects of morphine. Before leaving the subject of these agents he would emphatically recommend the hypodermatic use of moderate doses of this "atropho morphine," as he dubbed their combined solution, in attacks of cardiac asthma. These attacks, which are paroxysmal and occur chiefly at night, are most quickly and beautifully relieved by this means. The effect is to stimulate and not depress the already weakened and overburdened heart. This is no new idea, yet it is so certain and valuable an addition to a practitioner's therapeutic knowledge that we are glad to have Talfourd Jones give it his endorsement.

Lastly, he would urge the hypodermatic use of apomorphine. It is a prompt and safe emetic, specially serviceable in cases of poisoning and alcoholic intoxication. A convenient solution of the hydrochlorate can be made of the strength of one per cent., and of this the dose for an adult should be from 4 to 10 minims, that is, from the twenty-fifth to the tenth of a grain. The $\frac{1}{20}$ will produce emesis in from three to five minutes. For children 1 to 2½ minims should be employed. Still, he thinks it preferable to administer it to young children by the stomach. It should be remembered, however, that apomorphine acts very slowly when given in this way, since its action must depend upon its being absorbed.

As regards the needles employed, Jones is of the opinion that they are best made of steel, since they penetrate more easily and with less pain than those made of silver. Except when intended to reach deep tissues, their length should be from three-fourths of an inch to one inch. Such needles are easily cleaned and not likely to bend or break. Other practical points touched upon it is not best to mention here, as they are such as would naturally suggest themselves to any practical man.

In conclusion it may be said that there are several other remedies, such as pilocarpine, which are usefully given subcutaneously, and which it is advisable to have at hand. German therapeutists are very fond of administering the bichloride of mercury hypodermatically for the treatment of syphilis. This method was introduced by Lewin, and is very efficacious when it is desirable to bring the system rapidly under the influence of the drug The dose is from 1/6 to the 1/8 of a grain It is combined with 1/10 grain of morphine, and a small amount of sodium chloride, dissolved in 15 minims of water and injected beneath the skin of the back This mode of treatment has the endorsement of high authority Hypodermatic medication possesses many advantages and ought to receive greater attention on the part of the general practitioner

It is somewhat remarkable that so few physicians heat the solution for subcutaneous injection The amount to be injected may be put into a teaspoon, and a lighted match held under it until it boils By the time the fluid is taken into the syringe and the needle screwed on it will usually be sufficiently cooled to inject We are confident that many cases of abscess and sore arm would be avoided by taking this little trouble, especially when the more irritating preparations are used And when the solution is made on the spot boiling the water ensures solubility, and often precludes the necessity of the addition of an acid as a solvent It is often the case that nervous patients will contract the muscles of the arm into which the injection is to be made, and the injection is thus often made into a muscle This may cause an abscess Lastly, injections should be made, if possible, in a region comparatively free from superficial blood-vessels, and where there is a large amount of areolar tissue

TREATMENT OF CARBUNCLE WITHOUT INCISIONS

At the annual meeting of the American Medical Association, in May, 1885, Dr L D Bulkley, of New York, read a paper claiming a good degree of success in the treatment of carbuncles of all grades of severity, without incisions or other surgical procedures His method consists essentially in the daily dressing of the carbuncle with unirritating and somewhat antiseptic unguents spread on thick soft felt cloth, and the giving of sulphide of calcium internally, and proper diet In the discussion which followed several of the more experienced members of the Section coincided with Dr Bulkley

It was stated by the writer of the paper that free incisions through the diseased structures, by severing blood-vessels, added to the danger of septic poisoning, and thereby doing in some cases positive harm Since the publication of Dr Bulkley's paper in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION for May 16, 1885, an article has appeared in *Daniel's Texas Medical Journal*, of November, 1885, by DR C H WILKINSON, of Galveston, giving the results of his experience in the treatment of carbuncles with injections of carbolic acid during the last six or eight years He fully sustains Dr Bulkley in the opinion that surgical interferences with carbuncles are worse than useless We cannot give a better idea of the plan of treatment which Dr Wilkinson claims to be original with himself, than by copying the following paragraphs from his paper

"An Italian laborer, æt 51, applied to me for treatment of a well developed carbuncle situated upon the posterior cervical region, which measured five by six inches and was very irritable I selected two or three of the most prominent sinuses and injected into each of them about 10 minims of pure carbolic acid, full strength On the second day after the injection it was noticed that the inflamed areola had nearly disappeared, and the sore itself was casting off several large sloughs A few more drops of acid were then injected, after which the ill-conditioned, painful and highly inflamed carbuncle was converted into a simple, healthy, granulating ulcer, which healed to complete recovery within a few weeks after Since the treatment of this patient I have fallen heir to many similar cases, the carbuncle in the great majority of instances being situated on the nucha, and in every instance did a speedy return to health follow the carbolic acid treatment, as carried out in the case of the Italian My method of employing the agent has been, as just stated, to select a few prominent sinuses and inject into them from five to ten drops of pure liquid carbolic acid, using an ordinary hypodermic, or, better still, a Heaton's hernia syringe, throwing the fluid in the direction of the hard, red and painful spots about the periphery, and being careful to pick up all excess of acid that might ooze back through neighboring sinuses, with sponge or blotting paper

"Carbolic acid in this class of cases acts by converting an unhealthy into a healthy inflammation All erysipelatous tendency is checked instanter, wherever the acid touches, while the stimulus it affords to the capillaries promotes absorbtion on the one hand and healthy granulation on the other Great sloughs of necrotic, connective tissue are thrown off, and the carbuncle is soon converted into a rapidly-healing simple ulcer Furthermore, carbolic acid acts as a local anæsthetic in these cases, and did it do no other good than this in these most painful affections we would be amply justified in its employment for this purpose alone "

The plan here suggested is certainly worthy of a fair trial, with proper caution, lest too much of the carbolic acid might enter the circulation

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, February 1st, 1886.

THE PRESIDENT, C. T. PARKES, M. D., IN THE CHAIR.

DR. J. SUYDAM KNOX read a paper entitled

QUINSY AS A RHEUMATISM.

The author reported the treatment of fifty cases of the disease. In forty five cases (95 per cent.) there was a positive rheumatic diathesis. Forty of these cases were cured in thirty-six to seventy-two hours, without suppuration. The treatment was salicylate of sodium, and hot alkaline gargles, or the repeated insufflation on the tonsils of bicarbonate of soda. Five cases, decidedly rheumatic, were not benefited by similar treatment. Five cases, not rheumatic, were not benefited, and at the end of forty-eight hours the ordinary treatment of quinsy was followed. Only one of these cases did not suppurate. The doctor concludes that a large majority of quinsies are rheumatic inflammations. 1. From the percentage observed. 2. From the success of anti rheumatic treatment. 3. From the similarity between the symptoms of quinsy and rheumatism.

Dr. Knox said that wherever possible he used an insufflator and blew bicarbonate of soda directly on the tonsils, using as much as 30 grains, and allowing it to remain on the tonsils as long as possible, to be followed by a gargle of water as hot as could be borne and to be continued until the throat was cleared, which would take from half an hour to two hours. He sometimes used carbolized lime water, with morphia. He said that he could not say as to every case, but that where suppuration takes place it is usually in the gland, an abscess is formed from glandular inflammation and suppuration takes place through the gland.

DR. A. B. STRONG reported

A CASE OF INTUBATION OF THE LARYNX FOR ACUTE CATARRHAL LARYNGITIS, WITH RECOVERY.

He said the patient was a child, æt. 2½ years, delicate and small for her age. She had been sick thirty-six hours when it was decided that intubation was imperatively demanded, and it was done. Instant relief was obtained. The act of introducing a No. 3 tube had caused such an abundant ejection of the mucus, and the breathing was so easy, that the tube was withdrawn, and the child passed the night comfortably. However, at 4 P. M. of the succeeding day the tube was re-introduced with the same success, but about twelve hours after the child caught hold of the thread and withdrew the tube. The No. 2 tube was then placed in position and remained there sixty-eight hours, when recovery was complete. Dr. Strong said intubing the larynx has advantages over tracheotomy in being quickly performed, furnishing instant relief without cutting or bloodshed, being free from danger, and readily assented to by the parents. The care of the patient after operation is slight, as compared with tracheotomy, as the tube does not have to be interfered with, nor does it often clog up. The tubes as now made, those of Dr. O'Dwyer, are not easily coughed up. It is easier to introduce than remove the tube, owing to the fact that if the thread is left in the mouth it causes coughing and difficulty in swallowing. It was observed that during the thirteen hours the child wore the tube with the thread she had more difficulty in swallowing than subsequently when the thread was withdrawn, the thread being drawn across the epiglottis probably interferes with it closing the glottis during deglutition. Besides, the thread requires constant watching lest the child grasp it and withdraw the tube. Still, in case a mass of mucus should lodge against the lower end of the tube and stop respiration, the thread might be the means of saving the child's life by allowing the tube to be speedily withdrawn.

THE PRESIDENT said it was a matter of surprise to him that so small an opening would allow the exit of secretions, as in the case just reported. It had been his experience that recovery always follows cases of catarrhal laryngitis. However, in these cases, he thought the introduction of the tube might be of great benefit in relieving difficult breathing or dyspnœa, and in allaying the fears of friends. He was aware that a very small opening gave air sufficient for inspiration for some hours. He once operated on a boy about 5 years old, in whom the trachea by improper manipulation was turned in some way, and the incision made in the side of the trachea. When the external tracheotomy tube was introduced into the wound the child breathed quite well, the suffusion of the face passed away and the lips became red, but still the sound of the breathing was not satisfactory to the ear. He then tried to introduce the internal tube and found the child had a return of all the symptoms of suffocation. On removing the external tube at the bottom of the wound the trachea was seen unopened. The child recovered. The President said that while the tube was in this bad position he looked into it through the fenestra, and the bottom of the fenestra was an opening through which the smallest probe could be introduced into the trachea, which enabled the child to inspire air enough to relieve the urgent symptoms. He thought that in a case of true diphtheritic laryngitis an opening of the size of the tube under discussion could, in his opinion, not give exit to any such amount of secretion as is frequently seen during an operation. He did not think that intubation of the larynx would take the place of tracheotomy, it no doubt is of great benefit in those cases where the patient is likely to die unless some measure be quickly adopted which will give time enough to allow the operation of tracheotomy. In the case under discussion the tube was worn sixty eight hours continuously. He had not seen a case of tracheotomy where the closure of the fenestra gave evidence that the trouble with the larynx or glottis was overcome in less than six days. This was the shortest time in which he had been able to remove the tracheotomy tube.

DR. F. E. WAXHAM said that from his experience with intubation of the larynx he was thoroughly convinced of its utility, and its superiority over tracheotomy He had eight recoveries out of his first seventeen cases, a result which he claimed could not be approached by tracheotomy, especially in Chicago The ages of the patients varied from 11 months to 5 years, he considered these eight cases as being saved from certain death, as in only one case would tracheotomy have been permitted by the friends, and he had the corroborative evidence of other physicians as to the impending danger, and the urgent necessity of surgical interference Since his last report he had had a number of cases, and had performed the operation four times during the last week, one patient being only 11 months old, suffering from both laryngeal and pharyngeal diphtheria, the urgent symptoms were at once relieved In another case aged 18 months, where death was impending, the tube was introduced without difficulty and the child relieved, and recovery would without doubt have been the result had not the child died of pneumonia on the second day In another case, one of malignant diphtheria in a child of 2 years, the patient succumbed on the second day after the operation In another case he found the patient cold and livid, pulseless, and unconscious After the tube was introduced cold water was dashed on the child's face, and in about five minutes he looked around and asked for his father, took some milk and passed into a quiet sleep This child died from pneumonia three hours later Dr Waxham said that in the eight cases that recovered, in every instance false membrane was observed, when the tube was introduced the membrane was ejected, either in large flakes or broken down masses He recommended that in treatment after intubation nothing at all irritating should be given, as when a child takes fluid of any kind a few drops will trickle into the trachea and cause violent coughing, and this irritation will often lead to pneumonia In a child rugged and strong, bichromide of mercury may be given to hasten disintegration of false membrane The most remarkable case coming under his observation was a child of 4 years upon the verge of suffocation, when, upon the tube being introduced, a considerable portion of false membrane was thrown out through the tube and the violent symptoms subsided at once The thread was removed, and the second day after the operation the child was playing about the room and continued about the house during the four days that the tube was worn, and finally made an entire and perfect recovery Dr Waxham thought that in regard to the comparative value of tracheotomy and intubation very much might be said The text-books give as the percentage of recoveries from tracheotomy about one in three, but these statistics are made up from the most favorable reports If a physician has one recovery out of three or four cases he is justly proud of it and reports the case, on the other hand, if there is one recovery out of fifteen or twenty cases, no report is made He had known one physician to have operated fifty times with but two recoveries Dr Waxham thought that the thread should always be removed, as it is a constant cause of irritation, and that no difficulty need be experienced in removing the tube with extractors He thought intubation had a grand future

Dr E Fletcher Ingals did not take an enthusiastic view of intubation excepting for young children, when he thought it would be found more satisfactory than tracheotomy In very young children tracheotomy does not result well, and he thought intubation would be unsatisfactory in older ones until we have larger tubes He stated the accepted opinion of surgeons to be that a tube of less than one-fourth of an inch in diameter can not furnish sufficient air for a child to live on Dr Ingals thought that Dr Waxham had been remarkably successful with intubation, and had demonstrated its utility, for which he deserved credit Dr Ingals thought that intubation of the larynx is preferable to tracheotomy in children less than three and a half years of age, children much older than this cannot get a sufficient amount of air through the tube now in use He said, also, that in performing one operation he had had trouble with the gag, which was not large enough for the child, a boy of five years, who lifted his teeth from the gag and closed them on the doctor's finger He thought there was no need of the thread remaining, as there could be little difficulty in removing the tube Dr Ingals thought in cases where it is difficult to get the consent of friends, or where the conditions are such that tracheotomy cannot be performed right away, intubation would be of value, there are cases not membranous in which intubation may be of value The statistics looked pretty bad for tracheotomy but he had seen statistics of fifteen or sixteen cases where half of them were recoveries His success had not been quite so good, but he attributed this mainly to the fact that he had operated on five children who were almost dead, or at least had stopped breathing before the operation began He had the good fortune once to save a child who had not breathed for what seemed to him twenty minutes One of the strong points in favor of intubation is that it may be done early, and it does no harm even if unnecessary

Dr H T Byford said there was another way of drawing the line which would more accurately describe the usefulness of the two operations Intubation seemed to him the operation for private practice, and statistics so far are comparatively favorable to it as such But the cooperation of the patient's friends, the preparation of the inspired air by passage through natural channels, the freedom of intubation from grave responsibility, its bloodlessness, the simplicity of treatment afterwards, as well as the greater rapidity with which the mucous membrane around the vocal chords will get well, are conditions which have less bearing in hospital practice, where we have trained nurses and all modern appliances, and there is more hope of success in tracheotomy While he did not think this latter operation favorable for private practice, such advantages as having the tube under the eye, and within reach of the fingers, of an attendant, the ease of local medication, the possibility of removing shreds of membrane and plugs of mucus, and of inspecting the parts by removing the tube, and the longer time the tube can be retained, these are things that do not pertain to intubation, and which, in hospital practice, must secure for it some consideration He said that there was one

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, February 1st, 1886

THE PRESIDENT, C T PARKES, M D , IN THE CHAIR

DR J SUYDAM KNOX read a paper entitled

QUINSY AS A RHEUMATISM

The author reported the treatment of fifty cases of the disease In forty five cases (95 per cent) there was a positive rheumatic diathesis Forty of these cases were cured in thirty-six to seventy-two hours, without suppuration The treatment was salicylate of sodium, and hot alkaline gargles, or the repeated insufflation on the tonsils of bicarbonate of soda Five cases, decidedly rheumatic, were not benefited by similar treatment Five cases, not rheumatic, were not benefited, and at the end of forty-eight hours the ordinary treatment of quinsy was followed Only one of these cases did not suppurate The doctor concludes that a large majority of quinsies are rheumatic inflammations 1 From the percentage observed 2 From the success of anti-rheumatic treatment 3 From the similarity between the symptoms of quinsy and rheumatism

Dr Knox said that wherever possible he used an insufflator and blew bicarbonate of soda directly on the tonsils, using as much as 30 grains, and allowing it to remain on the tonsils as long as possible, to be followed by a gargle of water as hot as could be borne and to be continued until the throat was cleared, which would take from half an hour to two hours He sometimes used carbolized lime water, with morphia He said that he could not say as to every case, but that where suppuration takes place it is usually in the gland, an abscess is formed from glandular inflammation and suppuration takes place through the gland

DR A B STRONG reported

A CASE OF INTUBATION OF THE LARYNX FOR ACUTE CATARRHAL LARYNGITIS, WITH RECOVERY

He said the patient was a child, æt 2½ years, delicate and small for her age She had been sick thirty-six hours when it was decided that intubation was imperatively demanded, and it was done Instant relief was obtained The act of introducing a No 3 tube had caused such an abundant ejection of the mucus, and the breathing was so easy, that the tube was withdrawn, and the child passed the night comfortably However, at 4 P M of the succeeding day the tube was re-introduced with the same success, but about twelve hours after the child caught hold of the thread and withdrew the tube The No 2 tube was then placed in position and remained there sixty-eight hours, when recovery was complete Dr Strong said intubing the larynx has advantages over tracheotomy in being quickly performed, furnishing instant relief without cutting or bloodshed, being free from danger, and readily assented to by the parents The care of the patient after operation is slight, as compared with tracheotomy, as the tube does not have to be interfered with, nor does it often clog up The tubes as now made, those of Dr O'Dwyer, are not easily coughed up It is easier to introduce than remove the tube, owing to the fact that if the thread is left in the mouth it causes coughing and difficulty in swallowing It was observed that during the thirteen hours the child wore the tube with the thread she had more difficulty in swallowing than subsequently when the thread was withdrawn, the thread being drawn across the epiglottis probably interferes with it closing the glottis during deglutition Besides, the thread requires constant watching lest the child grasp it and withdraw the tube Still, in case a mass of mucus should lodge against the lower end of the tube and stop respiration, the thread might be the means of saving the child's life by allowing the tube to be speedily withdrawn

THE PRESIDENT said it was a matter of surprise to him that so small an opening would allow the exit of secretions, as in the case just reported It had been his experience that recovery always follows cases of catarrhal laryngitis However, in these cases, he thought the introduction of the tube might be of great benefit in relieving difficult breathing or dyspnœa, and in allaying the fears of friends He was aware that a very small opening gave air sufficient for inspiration for some hours He once operated on a boy about 5 years old, in whom the trachea by improper manipulation was turned in some way, and the incision made in the side of the trachea When the external tracheotomy tube was introduced into the wound the child breathed quite well, the suffusion of the face passed away and the lips became red, but still the sound of the breathing was not satisfactory to the ear He then tried to introduce the internal tube and found the child had a return of all the symptoms of suffocation On removing the external tube at the bottom of the wound the trachea was seen unopened The child recovered The President said that while the tube was in this bad position he looked into it through the fenestra, and the bottom of the fenestra was an opening through which the smallest probe could be introduced into the trachea, which enabled the child to inspire air enough to relieve the urgent symptoms He thought that in a case of true diphtheritic laryngitis an opening of the size of the tube under discussion could, in his opinion, not give exit to any such amount of secretion as is frequently seen during an operation He did not think that intubation of the larynx would take the place of tracheotomy, it no doubt is of great benefit in those cases where the patient is likely to die unless some measure be quickly adopted which will give time enough to allow the operation of tracheotomy In the case under discussion the tube was worn sixty-eight hours continuously He had not seen a case of tracheotomy where the closure of the fenestra gave evidence that the trouble with the larynx or glottis was overcome in less than six days This was the shortest time in which he had been able to remove the tracheotomy tube

DR F E WAXHAM said that from his experience with intubation of the larynx he was thoroughly convinced of its utility, and its superiority over tracheotomy He had eight recoveries out of his first seventeen cases, a result which he claimed could not be approached by tracheotomy, especially in Chicago The ages of the patients varied from 11 months to 5 years, he considered these eight cases as being saved from certain death, as in only one case would tracheotomy have been permitted by the friends, and he had the corroborative evidence of other physicians as to the impending danger, and the urgent necessity of surgical interference Since his last report he had had a number of cases, and had performed the operation four times during the last week, one patient being only 11 months old, suffering from both laryngeal and pharyngeal diphtheria, the urgent symptoms were at once relieved In another case aged 18 months, where death was impending, the tube was introduced without difficulty and the child relieved, and recovery would without doubt have been the result had not the child died of pneumonia on the second day In another case, one of malignant diphtheria in a child of 2 years, the patient succumbed on the second day after the operation In another case he found the patient cold and livid, pulseless, and unconscious After the tube was introduced cold water was dashed on the child's face, and in about five minutes he looked around and asked for his father, took some milk and passed into a quiet sleep This child died from pneumonia three hours later Dr Waxham said that in the eight cases that recovered, in every instance false membrane was observed, when the tube was introduced the membrane was ejected, either in large flakes or broken down masses He recommended that in treatment after intubation nothing at all irritating should be given, as when a child takes fluid of any kind a few drops will trickle into the trachea and cause violent coughing, and this irritation will often lead to pneumonia In a child rugged and strong, bichromide of mercury may be given to hasten disintegration of false membrane The most remarkable case coming under his observation was a child of 4 years upon the verge of suffocation, when, upon the tube being introduced, a considerable portion of false membrane was thrown out through the tube and the violent symptoms subsided at once The thread was removed, and the second day after the operation the child was playing about the room and continued about the house during the four days that the tube was worn, and finally made an entire and perfect recovery Dr Waxham thought that in regard to the comparative value of tracheotomy and intubation very much might be said The text-books give as the percentage of recoveries from tracheotomy about one in three, but these statistics are made up from the most favorable reports If a physician has one recovery out of three or four cases he is justly proud of it and reports the case, on the other hand, if there is one recovery out of fifteen or twenty cases, no report is made He had known one physician to have operated fifty times with but two recoveries Dr Waxham thought that the thread should always be removed, as it is a constant cause of irritation, and that no difficulty need be experienced in removing the tube with extractors He thought intubation had a grand future

DR E FLETCHER INGALS did not take an enthusiastic view of intubation excepting for young children, when he thought it would be found more satisfactory than tracheotomy In very young children tracheotomy does not result well, and he thought intubation would be unsatisfactory in older ones until we have larger tubes He stated the accepted opinion of surgeons to be that a tube of less than one-fourth of an inch in diameter can not furnish sufficient air for a child to live on Dr Ingals thought that Dr Waxham had been remarkably successful with intubation, and had demonstrated its utility, for which he deserved credit Dr Ingals thought that intubation of the larynx is preferable to tracheotomy in children less than three and a half years of age, children much older than this cannot get a sufficient amount of air through the tube now in use He said, also, that in performing one operation he had had trouble with the gag, which was not large enough for the child, a boy of five years, who lifted his teeth from the gag and closed them on the doctor's finger He thought there was no need of the thread remaining, as there could be little difficulty in removing the tube Dr Ingals thought in cases where it is difficult to get the consent of friends, or where the conditions are such that tracheotomy cannot be performed right away, intubation would be of value, there are cases not membranous in which intubation may be of value The statistics looked pretty bad for tracheotomy but he had seen statistics of fifteen or sixteen cases where half of them were recoveries His success had not been quite so good, but he attributed this mainly to the fact that he had operated on five children who were almost dead, or at least had stopped breathing before the operation began He had the good fortune once to save a child who had not breathed for what seemed to him twenty minutes One of the strong points in favor of intubation is that it may be done early, and it does no harm even if unnecessary

DR H T BYFORD said there was another way of drawing the line which would more accurately describe the usefulness of the two operations Intubation seemed to him the operation for private practice, and statistics so far are comparatively favorable to it as such But the cooperation of the patient's friends, the preparation of the inspired air by passage through natural channels, the freedom of intubation from grave responsibility, its bloodlessness, the simplicity of treatment afterwards, as well as the greater rapidity with which the mucous membrane around the vocal chords will get well, are conditions which have less bearing in hospital practice, where we have trained nurses and all modern appliances, and there is more hope of success in tracheotomy While he did not think this latter operation favorable for private practice, such advantages as having the tube under the eye, and within reach of the fingers, of an attendant, the ease of local medication, the possibility of removing shreds of membrane and plugs of mucus, and of inspecting the parts by removing the tube, and the longer time the tube can be retained, these are things that do not pertain to intubation, and which, in hospital practice, must secure for it some consideration He said that there was one clinical fact that had not been mentioned in this connection, yet which, more than all other things put together, accounts for the success of intubation and the failure of tracheotomy as life-saving measures in the one the patient can cough, in the other he can not After intubation the patient can normally close the glottis, compress the inclosed air in the lungs, and with sudden explosive force expel everything that is sufficiently loosened This accounts for the fact that with such a small tube the patient experiences no difficulty After tracheotomy the patient has no means of compressing the air and expelling it with sudden explosive force, he can simply inspire and expire forcibly and after exhausting efforts get rid of a little of the mucus This desperate condition of affairs has led some surgeons to employ the dangerous and barbarous custom of introducing feathers or other irritants into the tube to stimulate the mucous membrane, which excites the patient and scatters the mucus both upwards and downwards When somebody invents an appliance which will enable the patient to really cough through the tube, then tracheotomy will be placed upon a rational basis, and will stand some chance of becoming a useful operation The doctor thought tracheotomy had made a poor showing for its years of trial

Dr G C Paoli said that malignant diphtheria is a morbid poison, and that in epidemic cases there are very few recoveries He stated that in such cases exudation does not take place in the larynx or pharynx, and that an operation would only result in sending the patient more quickly to another world

Dr W E Quine said that he had operated twelve times for tracheotomy and had not had one recovery in diphtheritic cases He knew he was not alone in an experience of unvarying failure in cases of this kind, and he knew some surgeons now regard tracheotomy with very little enthusiasm It seemed to Dr Quine unfair to place intubation of the larynx in contrast with tracheotomy upon the basis of the assumption that tracheotomy is always a *dernier ressort*, that it is done when the patient is absolutely moribund, and that intubation is done under the most favorable circumstances This is not the fact Dr Quine said he was personally cognizant of two of Dr Waxham's cases in which the patients were *in extremis*, and in which death would undoubtedly have occurred in two or three hours had not relief been afforded Surgeons rarely had occasion to perform tracheotomy under more discouraging circumstances

Dr J J M Angear said he wished to call attention to a physiological and anatomical fact that had not been alluded to, viz that the arytenoid cartilages are not mature and that the chink of the glottis is held open by positive muscular action in small children, whereas in adults and older persons the arytenoid cartilages are mature and the chink is never closed Dr Angear said that a large number of children who suffocate will suffocate when there is no membrane present to cause suffocation, but simply some diseased condition that has interfered with the action of the delicate little muscles that draw back the arytenoid cartilages When inflammatory action has interfered with these muscles drawing back the arytenoid cartilages, some mechanical interference like this tube will assist these muscles to keep the chink of the glottis open and let air in He thought a large number of children who died of diphtheria did not choke to death, but died of poison in the system, and he did not think either the tube or tracheotomy, or any other process, could save them If there was interference with the opening of the chink of the glottis he had no doubt the introduction of the tube would save the life of the child

Dr J S Knox said that the curses of tracheotomy are the subsequent thoracic complications, either heart-clogs or congestion and inflammation of the lungs, producing fatal results, and the reason probably is that tracheotomy is the final resort in cases of laryngeal obstruction He thought that if tracheotomy were performed as early as intubation, there would be fifty per cent of recoveries The great advantage of intubation is that it can be performed early, and the early operation of intubation would no doubt save many a life that tracheotomy would not save performed late He thought that tracheotomy performed as early as intubation would show as good results

The President said that he did not intend to say anything against the practice of intubation, but he did not believe that it would take the place of tracheotomy Intubation has had but a very short trial, and it is not yet time to pronounce it better than tracheotomy The early experience of the President in tracheotomy had been almost the same as that of Dr Waxham in intubation In the first fifteen cases operated on but half of them recovered, and his later experience was better than that reported by Dr Waxham, as within the last month he had had three cases of tracheotomy, all recoveries, while Dr Waxham reports four cases of intubation, all fatal So far as his own personal experience went, he thought tracheotomy had the advantage The President thought that if he should put a tube in a child's throat for the relief of laryngitis and the child died without his having performed tracheotomy, he should consider himself very much to blame He had no doubt that cases of extreme diphtheritic laryngitis got well after tracheotomy, he had seen diphtheria of the pharynx and of the larynx recover after tracheotomy Although he did not feel enthusiastic about intubation he thought it had a very good place and in many cases might be very useful, but could never supplant tracheotomy

Dr Waxham said he had never found the tube occluded when it was removed In one case when he introduced the tube a portion of the membrane was crowded down ahead of it, obstructing it entirely, and the tube was ejected and was then completely filled with membrane, the child recovered subsequently On removing the tube on the fourth or fifth day he did not find it occluded

Dr A B Strong said, in conclusion, that he had had some experience with tracheotomy, having had twelve cases with but one recovery He had no doubt that in cases of diphtheria the membrane could come up through the opening The case read was reported as spasmodic croup, and was not supposed to be one of false membrane, but he believed the child would have died without interference, and that belief was shared by Dr Danforth, the attending physician Dr Strong said that he would hardly feel safe in leaving the tube in the trachea of a child without the thread He agreed with the President that large pieces of membrane could not readily pass through such a long tube In the case reported the tube was entirely free from membrane or pus when taken out

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, January 13, 1886

THE PRESIDENT, C H A KLEINSCHMIDT, M D, IN THE CHAIR

T E McARDLE, M D, SECRETARY

(Concluded from page 160)

DR H D FRY read a paper entitled

SOME REMARKS ON THE MANAGEMENT OF PROTRACTED FIRST STAGE OF LABOR

(See page 171)

DR J TABER JOHNSON congratulated Dr Fry in having brought this subject to the attention of the Society He believed that a great deal of danger from a protracted first stage is due to its deleterious influence on the second stage The patient enters upon this latter stage with diminished strength The whole household, in fact, is demoralized The mother and child are in danger, the latter from asphyxiation, the former from long continued pressure Dr Fry had not referred to some of the prominent causes of the trouble under consideration, such as malpresentations, ossification of the fontanelles, failure of the head to properly mold itself, unusual small size of pelvis, rigidity of the os, and so on Physicians have been governed too much by the oft repeated axiom concerning meddlesome midwifery Proper scientific interference is always permissible when intelligently applied Dr Johnson had used electricity in labor cases, and whil he is not such an enthusiast as Dr Baird, yet he had derived benefit from it, and had great hopes of its future The faradic current seems to steady the contractions, in a word, to render intermittent pains rhythmical Chloral had also proved an effective agent in Dr Johnson's hands He gives fifteen grains every hour until the agonizing intermittent pains are quieted and the patient is enabled to bear down with better results The warm douche against the cervix is often beneficial A large part of the gynecologist's practice is due to unattended labor cases It will not do for the accoucheur to be a mere midwife, he must know when interference is demanded by the exigencies of the case In reply to a question by Dr Fry, Dr Johnson said that when he had used electricity he had not found the pains less painful, but stronger and more effective

DR A Y P GARNETT was sorry that Dr Taber Johnson had not given us some more enlightened views on the points under discussion He apparently in the same breath urges stimulation and relaxation. He employs faradization to shorten the first stage because it produces uterine contractions, and he counsels the use of chloral for the same purpose because of its relaxing effect Dr Garnett had no experience with electricity in labor, but he was desirous of knowing whether a current strong enough to produce uterine contractions might not have a harmful effect upon the fœtus These gentlemen adopt means which have for their effects the same results obtained formerly by opium and bleeding He was not a strong advocate of early interference, but believed in applying forceps when occasion required

DR JOHNSON did not pretend to any special knowledge of electricity In labor cases this means must be employed delicately and properly The least injurious way is to apply one pole to the sacral region and the other to the fundus uteri, or the accoucheur may hold one electrode in his hand and pass the other hand gently over the woman's abdomen It is true the faradic current is used in extrauterine pregnancy for the purpose of killing the fœtus

DR GARNETT asked Dr Johnson the exact physiological action of ergot on the muscular fibres of the uterus Ergot contracts and electricity contracts, yet Dr Johnson advocates the use of one and deprecates the employment of the other

DR JOHNSON replied that ergot produced tonic contractions of the unstriped muscular fibres of the uterus, oftentimes shutting off the natural blood supply to the child Electricity can be applied at will and need not be used so as to cause continuous contractions Ergot also contracts the short circular fibres of the os In reply to a question by Dr Fry, Dr Johnson said he had used a Kidder's battery with the ordinary hand electrodes He placed one sponge at the back of the patient and held the other with his hand over the abdomen

DR FRY said he had mentioned in his paper the deleterious effect upon the first stage of the failure of the uterus and its contents to descend within the pelvic canal The causes of delay which Dr Johnson claims that he had overlooked were just such that prevented this descent He thought Dr Garnett took a narrow minded view of the subject In one case sedatives may be required and in another stimulants would be proper The rational method of treating these cases is to find out the influence at work which prevents dilatation of the os, and to employ that remedy indicated for its relief Dr Fry exhibited the electrodes used by Dr Baird He believed that electricity would prove a powerful and valuable aid in overcoming feeble uterine contractions His experience with it held out such a promise, but he did not find that the current gave relief to pain

DR J M TONER thought there was some misapprehension as to the neglect of physicians in the treatment of protracted labor cases and their indifference to the sufferings of parturient women There clinical fact that had not been mentioned in this connection, yet which, more than all other things put together, accounts for the success of intubation and the failure of tracheotomy as life-saving measures; in the one the patient can cough, in the other he can not. After intubation the patient can normally close the glottis, compress the inclosed air in the lungs, and with sudden explosive force expel everything that is sufficiently loosened. This accounts for the fact that with such a small tube the patient experiences no difficulty. After tracheotomy the patient has no means of compressing the air and expelling it with sudden explosive force, he can simply inspire and expire forcibly and after exhausting efforts get rid of a little of the mucus. This desperate condition of affairs has led some surgeons to employ the dangerous and barbarous custom of introducing feathers or other irritants into the tube to stimulate the mucous membrane, which excites the patient and scatters the mucus both upwards and downwards. When somebody invents an appliance which will enable the patient to really cough through the tube, then tracheotomy will be placed upon a rational basis, and will stand some chance of becoming a useful operation. The doctor thought tracheotomy had made a poor showing for its years of trial.

Dr. G. C. Paoli said that malignant diphtheria is a morbid poison, and that in epidemic cases there are very few recoveries. He stated that in such cases exudation does not take place in the larynx or pharynx, and that an operation would only result in sending the patient more quickly to another world.

Dr. W. E. Quine said that he had operated twelve times for tracheotomy and had not had one recovery in diphtheritic cases. He knew he was not alone in an experience of unvarying failure in cases of this kind, and he knew some surgeons now regard tracheotomy with very little enthusiasm. It seemed to Dr. Quine unfair to place intubation of the larynx in contrast with tracheotomy upon the basis of the assumption that tracheotomy is always a *dernier ressort*, that it is done when the patient is absolutely moribund, and that intubation is done under the most favorable circumstances. This is not the fact. Dr. Quine said he was personally cognizant of two of Dr. Waxham's cases in which the patients were *in extremis*, and in which death would undoubtedly have occurred in two or three hours had not relief been afforded. Surgeons rarely had occasion to perform tracheotomy under more discouraging circumstances.

Dr. J. J. M. Angear said he wished to call attention to a physiological and anatomical fact that had not been alluded to, viz.: that the arytenoid cartilages are not mature and that the chink of the glottis is held open by positive muscular action in small children, whereas in adults and older persons the arytenoid cartilages are mature and the chink is never closed. Dr. Angear said that a large number of children who suffocate will suffocate when there is no membrane present to cause suffocation, but simply some diseased condition that has interfered with the action of the delicate little muscles that draw back the arytenoid cartilages. When inflammatory action has interfered with these muscles drawing back the arytenoid cartilages, some mechanical interference like this tube will assist these muscles to keep the chink of the glottis open and let air in. He thought a large number of children who died of diphtheria did not choke to death, but died of poison in the system, and he did not think either the tube or tracheotomy, or any other process, could save them. If there was interference with the opening of the chink of the glottis he had no doubt the introduction of the tube would save the life of the child.

Dr. J. S. Knox said that the curses of tracheotomy are the subsequent thoracic complications, either heart-clogs or congestion and inflammation of the lungs, producing fatal results, and the reason probably is that tracheotomy is the final resort in cases of laryngeal obstruction. He thought that if tracheotomy were performed as early as intubation, there would be fifty per cent. of recoveries. The great advantage of intubation is that it can be performed early, and the early operation of intubation would no doubt save many a life that tracheotomy would not save performed late. He thought that tracheotomy performed as early as intubation would show as good results.

The President said that he did not intend to say anything against the practice of intubation, but he did not believe that it would take the place of tracheotomy. Intubation has had but a very short trial, and it is not yet time to pronounce it better than tracheotomy. The early experience of the President in tracheotomy had been almost the same as that of Dr. Waxham in intubation. In the first fifteen cases operated on but half of them recovered, and his later experience was better than that reported by Dr. Waxham, as within the last month he had had three cases of tracheotomy, all recoveries, while Dr. Waxham reports four cases of intubation, all fatal. So far as his own personal experience went, he thought tracheotomy had the advantage. The President thought that if he should put a tube in a child's throat for the relief of laryngitis and the child died without his having performed tracheotomy, he should consider himself very much to blame. He had no doubt that cases of extreme diphtheritic laryngitis got well after tracheotomy, he had seen diphtheria of the pharynx and of the larynx recover after tracheotomy. Although he did not feel enthusiastic about intubation he thought it had a very good place and in many cases might be very useful, but could never supplant tracheotomy.

Dr. Waxham said he had never found the tube occluded when it was removed. In one case when he introduced the tube a portion of the membrane was crowded down ahead of it, obstructing it entirely, and the tube was ejected and was then completely filled with membrane, the child recovered subsequently. On removing the tube on the fourth or fifth day he did not find it occluded.

Dr. A. B. Strong said, in conclusion, that he had had some experience with tracheotomy, having had twelve cases with but one recovery. He had no doubt that in cases of diphtheria the membrane could come up through the opening The case read was reported as spasmodic croup, and was not supposed to be one of false membrane, but he believed the child would have died without interference, and that belief was shared by Dr Danforth, the attending physician Dr Strong said that he would hardly feel safe in leaving the tube in the trachea of a child without the thread He agreed with the President that large pieces of membrane could not readily pass through such a long tube In the case reported the tube was entirely free from membrane or pus when taken out

---

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, January 13, 1886

The President, C H A Kleinschmidt, M D, in the Chair

T E McArdle, M D, Secretary

(Concluded from page 160)

Dr H D Fry read a paper entitled

SOME REMARKS ON THE MANAGEMENT OF PROTRACTED FIRST STAGE OF LABOR

(See page 171)

Dr J Taber Johnson congratulated Dr Fry in having brought this subject to the attention of the Society He believed that a great deal of danger from a protracted first stage is due to its deleterious influence on the second stage The patient enters upon this latter stage with diminished strength The whole household, in fact, is demoralized The mother and child are in danger, the latter from asphyxiation, the former from long-continued pressure Dr Fry had not referred to some of the prominent causes of the trouble under consideration, such as malpresentations, ossification of the fontanelles, failure of the head to properly mold itself, unusual small size of pelvis, rigidity of the os, and so on Physicians have been governed too much by the oft repeated axiom concerning meddlesome midwifery Proper scientific interference is always permissible when intelligently applied Dr Johnson had used electricity in labor cases, and whil he is not such an enthusiast as Dr Baird, yet he had derived benefit from it, and had great hopes of its future The faradic current seems to steady the contractions, in a word, to render intermittent pains rhythmical Chloral had also proved an effective agent in Dr Johnson's hands He gives fifteen grains every hour until the agonizing intermittent pains are quieted and the patient is enabled to bear down with better results The warm douche against the cervix is often beneficial A large part of the gynecologist's practice is due to unattended labor cases It will not do for the accoucheur to be a mere midwife, he must know when interference is demanded by the exigencies of the case In reply to a question by Dr Fry, Dr Johnson said that when he had used electricity he had not found the pains less painful, but stronger and more effective

Dr A Y P Garnett was sorry that Dr Taber Johnson had not given us some more enlightened views on the points under discussion He apparently in the same breath urges stimulation and relaxation He employs faradization to shorten the first stage because it produces uterine contractions, and he counsels the use of chloral for the same purpose because of its relaxing effect Dr Garnett had no experience with electricity in labor, but he was desirous of knowing whether a current strong enough to produce uterine contractions might not have a harmful effect upon the fœtus These gentlemen adopt means which have for their effects the same results obtained formerly by opium and bleeding He was not a strong advocate of early interference, but believed in applying forceps when occasion required

Dr Johnson did not pretend to any special knowledge of electricity In labor cases this means must be employed delicately and properly The least injurious way is to apply one pole to the sacral region and the other to the fundus uteri, or the accoucheur may hold one electrode in his hand and pass the other hand gently over the woman's abdomen It is true the faradic current is used in extra-uterine pregnancy for the purpose of killing the fœtus

Dr Garnett asked Dr Johnson the exact physiological action of ergot on the muscular fibres of the uterus Ergot contracts and electricity contracts, yet Dr Johnson advocates the use of one and deprecates the employment of the other

Dr Johnson replied that ergot produced tonic contractions of the unstriped muscular fibres of the uterus, oftentimes shutting off the natural blood supply to the child Electricity can be applied at will and need not be used so as to cause continuous contractions Ergot also contracts the short circular fibres of the os In reply to a question by Dr Fry, Dr Johnson said he had used a Kidder's battery with the ordinary hand electrodes He placed one sponge at the back of the patient and held the other with his hand over the abdomen

Dr Fry said he had mentioned in his paper the deleterious effect upon the first stage of the failure of the uterus and its contents to descend within the pelvic canal The causes of delay which Dr Johnson claims that he had overlooked were just such that prevented this descent He thought Dr Garnett took a narrow-minded view of the subject In one case sedatives may be required and in another stimulants would be proper The rational method of treating these cases is to find out the influence at work which prevents dilatation of the os, and to employ that remedy indicated for its relief Dr Fry exhibited the electrodes used by Dr Baird He believed that electricity would prove a powerful and valuable aid in overcoming feeble uterine contractions His experience with it held out such a promise, but he did not find that the current gave relief to pain

Dr J M Toner thought there was some misapprehension as to the neglect of physicians in the treatment of protracted labor cases and their indifference to the sufferings of parturient women There may be some difficulty at first in determining which are true and which are false labor pains. The beginning of labor is not always easily determined. He advocated the use of hot water and unguents in treating a sensitive and dry vagina.

DR. FRY said he had reference to those pains which were strong enough to keep the patient awake, prevent her from obtaining proper nourishment, which produce nervous exhaustion, and yet do not assist the progress of labor. The moisture obtained from the natural secretions is better than all ointments. Dr. Fry spoke of the benefits to be derived from the proper use of morphia and chloral, and called attention to the method of lifting the head until the bag of waters is formed.

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

Scarlet Fever from Milk—The Society of Public Analysts—St. Bartholomew's Hospital—Pasteur's Rule concerning Rabies—Spontaneous Hydrophobia.

Dr. Wynter Blyth, Medical Officer of Health to the Marylebone Vestry, has just presented to that body a report which throws new and unexpected light on the origin of a recent outbreak of scarlet fever. A minute examination leads to the inference that every case in the outbreak referred to was traceable to the drinking of milk from a cow or cows on a model farm some distance from town. Dr. Blyth, after mentioning that Dr. Power has been deputed to investigate the matter, says, one of the cows has been bought and removed to the Brown Institution, where Dr. Klein is making experiments with the milk and secretions. It appears that between December 1st and 29th there were in the parish sixty cases of illness having this one thing in common, that the patients drank milk from one of the three dairies getting their supply from the same model farm. Some of the sufferers had simple sore throat, others a mild attack of scarlet fever, a few a severe attack. In one case death resulted. Those who drank no milk save that which had been boiled, were not attacked, and most of those who merely took a little milk in tea and coffee escaped. Children taking considerable quantities of lukewarm or unboiled milk, and adults drinking raw milk formed the bulk of cases. Several cases of infection from the cream occurred, and I had reason to believe that the disease-influence was in a more concentrated form in the cream than in the milk. This report is necessarily incomplete, for the full history will not be known until Dr. Power publishes his report and gives details relative to cases in the parishes of Hampstead and Hendon, infected either direct from the farm or indirectly through dairy, together with the results of the examination of the cows and Dr. Klein's experiments. There can be no doubt but that from these data most important discoveries may be made as to the origin of scarlet fever, and the results are awaited with much interest by the profession.

At the annual meeting of the Society of Public Analysts, Dr. Alfred Hill, of Birmingham, was re-elected President for the ensuing year. The President in the course of his address referred to the work done by the Society during the year in the advancement of science and in the improvement of analytical methods, and alluded to several matters of interest in connection with the working of the "Sale of Food and Drugs Act."

The annual Christmas festivities have just been held in the Grand Hall of St. Bartholomew's Hospital. A singular interest attaches to the history of this well known hospital, from the fact that more than 700 years ago it was founded by one Rahere, who had been the king's jester, but later in life became a monk, whereupon he made a pilgrimage to Rome. There he visited the monastery of St. Bartholomew, situated upon an island in the centre of the Holy City, where the sick were taken in and tended by the monks. On returning to England he obtained an interview with the king, who granted him the space of ground outside of the then limits of the city—the same site on which the present hospital stands—then, as now, known by the name of Smithfield. From that date the hospital has been doing the good work in which it is now engaged, having been enriched from time by charters and grants of lands from successive monarchs, and legacies from the pious and charitable. It now possesses 13,000 acres of landed property in the home counties, and 2000 houses in the city and other parts of the metropolis. These estates are administered by a treasurer and a board of management. The nursing staff is nearly 200 strong, and consists of sisters who are distinguished by their blue dresses, the nurses being attired in dark gray and the probationers in light gray. These probationers are divided into two classes. Forty are ordinary probationers, well educated women, who bind themselves for three years, some of them daughters of clergymen, and who receive payment for their services, whilst about eighteen are special probationers, who pay a guinea a week for instruction in the science of nursing, and for whom a home, presided over by a lady superintendent, is provided. To the present treasurer is to be ascribed the credit of introducing the system of training nurses at St. Bartholomew's, for until his appointment as treasurer, in 1873, there was not a single skilled nurse in the establishment, although there were many in the newest of our metropolitan hospitals—St. Thomas's. It should be mentioned that with the steadily increasing value of the hospital's house property—for the landed estates are, owing to the general agricultural depression, not in a very flourishing condition—is a parallel increase of expenditure, consequent on the entire reform in the system of nursing, the rebuilding of schools, museums and class rooms, and the maintenance of a convalescent home at Swanley, in Kent, into which home are admitted patients only who have passed through the hospital. The programme of the entertainment consisted of two dramatic pieces, sustained with much ability by the members of the Hospital Dramatic Club. Between the pieces was a concert, the part songs in which were admirably rendered by members of the Hospital nursing staff and of the Hospital Musical Society The whole was thoroughly enjoyed by a large audience

M Pasteur has laid down the following rules as to hydrophobia in dogs, which will be read with interest "Every dog, whether it eats or not, that is attacked with rabies, dies in a few days When it eats, death is delayed a few days, but that is all It cannot live for more than ten days, and will probably die on the eighth During the interval rabid symptoms will be shown Lock up, therefore, and chain the dog Be careful in feeding it, and in cleaning away its litter not to go within biting distance If it survives the tenth day you may have an easy mind If it has bitten a person before being secured, the wound must be attended to It should on no account be neglected The spittle of a perfectly healthy dog may contain microbes which would cause an abscess In very rare cases the bites of such dogs have caused septic blood poisoning If rabid symptoms declare themselves, a person who has been bitten should at once go to M Pasteur's laboratory, and he will be happy to treat them for rabies Two Hungarian soldiers who were lately bitten by a mad dog have been sent to Paris at the expense of the Government to be attended by M Pasteur A case has just been mentioned of well-established "spontaneous hydrophobia" in a man aged 29 Not only did all the symptoms which characterize that malady declare themselves, but the matter taken from the patient's body when he died communicated it to rabbits inoculated therewith G O M

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Prof Peter on the Parasitic Doctrines of Disease

I have more than once referred to Dr Peter, Professor of Medical Pathology at the Paris School of Medicine, as being an avowed adversary of the parasitic doctrine that is gaining ground in the science and art of medicine of the present day As the parasitic doctrines have been published in the medical journals almost without comment, it has been inferred in many quarters that these doctrines are unassailable It may, therefore, be interesting to know what arguments the adversaries of these doctrines have to advance against them, and it is with this view that I here reproduce notes of a lecture recently delivered by Professor Peter on the subject The necessary distinction, said the Professor, between the lesion and the malady has been ignored by the physicians who look upon tuberculosis as a parasitic malady and consider the rod, which the microscope has revealed in certain tuberculous lesions, as the cause of the malady Thus we have now two tuberculoses The tuberculosis of the old school was a general, spontaneous, intrinsic malady, created by the organism under the influence of innutrition and other debilitating causes

The tuberculosis of the new school is a malady of extrinsic or accidental origin, produced by the invasion of a foreign body According to this view of the matter, the bacillus is at the same time the cause and the criterion of the nature of the malady It consequently follows that if, in the lesions which clinicians have always looked upon as being scrofulous, bacilli are found, these lesions ought henceforth to be reputed tuberculous, this would lead to the admission of the identity of scrofula and tuberculosis, which would evince gross misapprehension of clinical observation If, on the other hand, in granulations manifestly tuberculous, one does not find bacilli, but zooglœa, the partisans of the parasitic doctrine conclude that the malady is tuberculous, but of a zooglœic tuberculosis, which would be the height of confusion After giving a description of the bacilli and the various maladies in which they are found, Professor Peter admits that the discovery of Koch has been a real conquest Koch has taught us, that in revealing the existence of bacilli, to better recognize the tubercle, as Laennec taught us to recognize the divers modalities of the tubercle, the grey granulation The crude, caseous tubercle, grey infiltration So far the discovery of the bacillus of Koch is a conquest for morbid anatomy, it is also a conquest for semiology, as the presence of the bacillus permits us to distinguish the sputum of a tuberculous patient from that of an ordinary bronchitic case

But since the discovery of Koch, the profession seems to have gone too far in the wake of enthusiasm It was believed that the recognition of this rod, a pretended parasite, was going to open a new era to the therapeutics of tuberculosis It is a strange error which consists in deducing therapeutics from morbid anatomy, which is only the natural history of lesions, as semiology is the natural history of symptoms, and in confounding the lesion, which is only a product, with the malady, which is an act, it will be just as if one confounded surgery with medicine The lesion is a "*fait accompli*" It is a manifestation of a deviation of nature, but at the same time acting The surgeon acts on the lesion when he treats a fracture, the physician struggles against an act when he treats a case of pneumonia or of pleurisy It is to the living nature of the pneumonic, to the vitality of the pleuritic, that he should address himself Medically speaking, in discovering the bacillus, there was no therapeutic conquest made, as the parasite was considered, hypothetically, the cause of tuberculosis, it was thought that by impeding the life of the parasite one would cure the tuberculous affection This, said the Professor, is a gross error

After giving a description of the origin and development of the various bacilli, as shown in the laboratory, M Peter thinks that these pretended parasites originate in our own organisms, that the different viruses generated in us may be transformed under certain influences into agents of protection of the organism, and M Pasteur ought to be commended for his researches and his experiments, but we must not cry victory too soon

In concluding his lecture, Professor Peter explained why he should be so embittered against the parasitic doctrines, "which seem to spread after the fashion of the parasites," it is because those in favor of the doctrine "are mistaken in taking the effect for the cause, a morbid product for a generator of disease, and analogy for identity." Certain consequences of such confusion broke out in the famous inoculations of Ferrán, who pretended to produce an experimental cholera, as are so many experiments of the kind as performed in laboratories. As there is no error which has not its sanction, the parasitic doctrine has had one in a social and medical point of view. To consider tuberculosis as parasitic is to admit that all phthisical subjects had caught the disease by contagion and that they can communicate it to others by contagion. The therapeutic consequence is to seek to combat the parasite without, in organizing quarantines against tuberculous subjects, and within in administering microbicide substances such as creosote, carbolic acid, etc. Finally, M. Peter finds the social sanction in the reproduction, in our times, of savage scenes worthy of another age. That which was seen lately at Naples and at Sicily, for the cholera, takes place every day, every year, in certain towns in the south of Italy, where the landlords compel the unfortunate subjects of phthisis to cancel their leases. It is to prevent the generalization of such monstrous acts that M. Peter believes it his duty to combat with all his force, to convince his confrères, to instil his ideas into his pupils, and to keep the public on their guard against the delusions which trouble the brains of our contemporaries.

Prof. Peter was a pupil and friend of Trousseau, whose doctrines he is supposed to have fully imbibed and from his present position his opinions are worthy of some consideration.

A. B.

DOMESTIC CORRESPONDENCE

THE NINTH INTERNATIONAL MEDICAL CONGRESS

To the Editor of the Journal.

Dear Sir:—There is one significant fact in this matter of the next meeting of the International Medical Congress, which has not attracted attention, which to the writer seems important, namely, the *undue haste* exhibited by the Original Committee of Seven to get out their work *ad captandum vulgus*. The editor of the *Philadelphia Medical News*, in his specious editorial reply to "Country Doctor" in his issue of January 30, although *he was one of the seven*, carefully abstains from any explanation of it.

These seven, whom he with characteristic modesty describes as "*the most eminent contributors to the advancement of medical science* in the country in which the Congress was to meet," were commissioned by the American Medical Association in May, 1884, to go to Copenhagen and invite the Congress to hold its next meeting in this country. They satisfactorily performed this office, and through their spokesman promised the members a generous welcome, he pledging himself to do a variety of things without reservation (expressed at least), as to the contingency of his not being allowed to have everything his own way (I do not mean the editor of the *Medical News*). They hied home, went to work upon an organization which showed the evidences of the personal preferences and enmities of some of the individual seven, and published all over Europe their cut and dried scheme for a meeting which was not to take place until 1887, without waiting the few weeks before the meeting of the American Medical Association, to report their work to that Association in whose name, by whose authority and under whose appointment only they had anything whatever to do with the matter.

Now let us see how differently things were managed for the Seventh Session of the International Medical Congress, which was held in London in 1881. At the Sixth Session of the Congress, held at Amsterdam in September, 1879, it was determined to hold the next meeting at London, in 1881 and in September, 1880, one year after the adjournment of this Sixth Session, and *only eleven months* before the convening of the Seventh, a circular was issued from London, signed J. Risdon Bennett, Chairman of the Executive Committee, and William MacCormac, Secretary-General, which stated as follows:

> "We have the honor to inform you that at the close of the Sixth Session of the International Medical Congress, held last September in Amsterdam, under the presidency of Professor Donders, of Utrecht, a unanimous desire was expressed that the next meeting should take place in Great Britain in 1881.
>
> "This desire having been communicated to the presidents of the Royal College of Physicians and Surgeons in London, they convened a meeting of delegates from the various universities, colleges and other public bodies of the United Kingdom, including the principal medical societies, the British Medical Association, and the medical departments of the army, navy and India office, in order to obtain a thoroughly national representation of feeling and opinion.
>
> "The response to this appeal having been most cordial, it was decided at the meeting of delegates thus convened to comply with the wish expressed at the meeting at Amsterdam, and to hold the Congress in London. A general committee of organization was appointed, an executive committe, and a reception committee to carry out the necessary details.
>
> * * * * * * *
>
> "The work of the Congress will be carried on in fifteen Sections. The days of the meeting will extend from Wednesday, the 3d, to Tuesday, the 9th of August, both days included. A reception of welcome will take place on the evening of August 2."

The London *Medical Times and Gazette* (since gone out of existence) rebuked the *London Lancet* for according to the American Medical Association any consideration whatever in the organization and control of the Congress, asserting that it only has a membership of 3,000 members against 40,000 physicians excluded from the Congress by its present Committee on Organization. The *British Medical Journal*, which is no better informed than this as to the representative character of the American Medical Association, may well be suspected of arguing *ex parte*, but there are American medical journals which have reproduced this unfounded statement without contradiction or correction. Assuming that the American Medical Association was not the only source whence "to obtain a thoroughly national representation of feeling and opinion," as was obtained in Great Britain, on what assumption can the Original Committee of Seven or the coadjutors they themselves selected to constitute the General Committee with them, claim to have accomplished this result?

Were they authorized to act for the American Surgical Association, the American Gynecological Association, the American Ophthalmological and Otological Association, the American Laryngological Association, the American Academy of Medicine, the American Climatological Association, the American Public Health Association, the Medical Departments of the Army, Navy and Marine Hospital Service, the Canadian Medical Association, or, indeed for anything but the medical profession as represented by the American Medical Association?

If there is any doubt in Europe that a *thoroughly national* representation of the profession of medicine in this country can be obtained through the American Medical Association, then let there be "convened a meeting of delegates from the various universities, colleges and other public bodies" in the United States (and Canada), including the principal medical societies, the American Medical Association and the Medical Departments of the Army, Navy and Marine Hospital Service, in order to obtain such a thoroughly national representation as was done at London There is ample time for such a meeting The Ninth Session of the Congress need not assemble until the autumn of 1887 There is not such a mighty need of preparation that an active Executive Committee cannot accomplish it all within six months Many of the previous meetings of the International Medical Congress have been held at intervals of only two years, thus

The First Session was held at Paris, in 1867, the Second in Florence, in 1869, the Third in Vienna, in 1873 the Fourth in Brussels, in 1875, the Fifth in Geneva, in 1877, the Sixth in Amsterdam, in 1879, the Seventh in London, in 1881, the Eighth in Copenhagen, in 1884, and the Ninth will be held in Washton, in 1887

If the American Medical Association cannot be entrusted with the task of organizing the Congress, *in the* name of the whole medical profession of this country, through its present Executive Committee, certainly the Original Committee of Seven, also appointed by it, can allege still less sanction for their dictatorial proceedings When the editor of the *Medical News*, who was also one of the Seven, "one of the most eminent contributors to the advancement of medical science" in his country, Member of the General Committee and Chairman of the Executive Committee, writes to "Country Doctor" that "at both the London and Copenhagen meetings *irregular* physicians are known to have inscribed their names on the register and the fact *did not in the least* disturb the Committee on Organization or detract from the success of the meeting," does he intend the medical profession to understand that subscription to the Code of Ethics of the American Medical Association does not mean, so far as he and the rest of the Original Committee of Seven are concerned, an honest, manly belief in its principles, acceptance of its restrictions and observation of its obligations, at all times and under all circumstances, but that he and they did similarly intend not to be in the least disturbed when *irregular* physicians inscribed their names on the register, and to sit in cheek-by jowl fraternity with them in a way no New York *New Coder* ever dreamed of doing? In this country, be it remembered, the homœopath is not the only species of the *irregular* physicians, but the eclectic and electric—the botanic and the hygeio-therapeutic—and a dozen more, are just as *legally* recognized as the editor of the *Philadelphia Medical News* MEDICUS

BOOK REVIEWS

PROCEEDINGS OF THE NEBRASKA STATE MEDICAL SOCIETY Seventeenth Annual Session, held at Grand Island, May 26–28, 1885 8vo, pp 385 Lincoln 1885

This well-printed volume of Transactions contains much more interesting and valuable material than is usually found in State Society Transactions, and the papers are conveniently classified under their proper sections of medicine, surgery, etc Under the Section on Surgery we find seven papers, all of some and some of great interest

The first surgical paper is the history of a case of *Penetrating Gunshot Wound of the Abdomen*, by Dr J K I Duncan, of DeWitt The patient recovered under treatment by opium and rest, though the ball penetrated the intestine, as shown by the fact that it was passed with the fæces The author assumes in the paper that the bullet, 38 calibre, injured the left kidney, the assumption being based on the fact that a few blood corpuscles were found in the urine on the fourth day As the ball entered the abdomen about one inch above the umbilicus, and then lodged in the intestine it does not seem possible that it could have reached the kidney, even though it "ranged inward, downward, and somewhat to the left"

Dr Duncan also reports a case of *Compound Fracture of the Skull, with Depression*, in which the skull was trephined, and recovery resulted The case was that of a boy, age not given, over whose head one wheel of a wagon loaded with grain had passed He was picked up in an unconscious condition, in which he was when Dr Duncan saw him about twenty eight hours after the injury Examination showed a fracture of the right parietal bone over the middle posterior portion, and extending into the posterior superior portion of the squamous portion of the temporal bone Having obtained assistance Dr Duncan made a semi circular incision extending somewhat over the sound portion of the parietal, and found a depressed fracture The centre pin of a trephine was placed on the sound table of the parietal bone, superior to the upper line of fracture, so near the fracture that a portion of the circle of the groove (using Galt's conical trephine) would extend partly over the depressed portion of the bone and internal to the line of fracture, making the groove evenly to the internal table, thus enabling him to remove the disk very readily One portion of the depressed bone had penetrated the dura mater, and was removed entire, the other portion was elevated The whole wound was then dressed antiseptically The wound was dressed on the third day, and the stitches were removed and a collodion and cotton dressing put on the sixth day. A fortnight later the boy was in perfect health. In connection with this case we may mention one of *Depressed Fracture of the Skull, with Laceration of the Dura Mater and Loss of Brain Tissue,* reported by Dr. M. L. Hildreth, of Lyons. A boy, aet. 6 years, was kicked on the top of the head by a horse. There was a contused wound of the scalp extending backwards and to the right from a point one-half an inch to the right of the median line, and at about the junction of the frontal and parietal bones, for a distance of about five inches. Anteriorly the wound extended through the bone, and one edge of the fracture was depressed to the extent of about half an inch. There was some twitching of the extremities, but no paralysis, and the patient was "indifferent on being aroused, and inclined to be let alone." Having failed to elevate the depressed bone with such instruments as he had with him, Dr. Hildreth determined not to trephine unless subsequent symptoms should demand it, the idea being that the loss of brain tissue would obviate the tendency to compression. He was inclined to think that it would be better to leave the depressed portion of bone where it was than to create a cavity by elevating it, and thus render drainage less perfect. The scalp was shaved, drainage provided for, adhesive plaster to retain flaps, antiseptic compresses, and bandage. A considerable amount of sloughing occurred under one flap, which was badly contused. Brain tissue continued to escape from the opening for about ten days, aggregating the amount of f℥ss, when it ceased and the opening filled with fibrous tissue. Two small pieces of detached bone came away during the process of healing. Recovery took place without unfavorable symptoms. (The case was reported five months after the occurrence of the accident.)

The dictum of Legouest, "whenever there is a doubt whether trephining should be done, this doubt is probably an indication that the operation should be performed," ought to be paraphrased "whenever there is a doubt as to whether a depressed portion of bone should be elevated, this doubt is an indication that it should be elevated." In the case reported by Dr. Hildreth it is very doubtful if so much as half an ounce of brain tissue would have escaped had the depressed portion of bone been elevated. In any case of doubt it is certainly better to incur the comparatively slight risks of early operation than the greater risks of a probably late operation, or subsequent epilepsy or insanity. In the case under consideration it seems that whatever drainage was required could certainly be better established even after the creation of a cavity than by running the risk of a cavity of suppuration under the depression where it could not be easily reached. There can scarcely be a doubt that it is better to operate when the depression is marked, even without brain symptoms, and a depression of three eighths or one half of an inch is to be regarded as marked depression. Dr. Hildreth also reports an interesting case of *Severe Concussion of the Spine, with probable Hæmorrhage,* due to a fall upon the back on frozen ground, from a height of fifty feet. There was complete motor paralysis below the 9th dorsal vertebra, with hyperæsthesia of legs and feet, and subsequent myelomeningitis. Belladonna, bromide of potassium, and ergot, with blisters on either side of the spine opposite the point of injury, were administered during the period of fever. The patient was able to walk with a cane in the course of six weeks, and continued to improve, but the paralysis of the bladder and rectum continued. Dr. J. S. Leonhardt, of Seward, reports three cases of fracture, two of the superior maxilla, and one of the surgical neck of the humerus, which were successfully and ingeniously treated. In the Section on Forensic Medicine and Toxicology is another interesting paper by Dr. Leonhardt, on *Six Cases of Poisoning with Treatment,* the poisoning agents being Blackberry Balsam, phosphorus, aconite, carbolic acid, arsenious acid, and three cases of poisoning by nutmeg, all of which recovered.

On the whole this number of the Transactions of the Nebraska State Medical Society is far above the average State Society publications. We could wish, however, that the writers would be a little more careful in the matter of spelling ("clo pot" does not stand for any drug in common use), and that the next volume will not show so much extraneous matter. Nothing so mars the value and elegance of an article as remarks seemingly intended to be rather funny. We also note a tendency in some of the articles towards sarcastic remarks. Happily these are faults that can be remedied. Elegance will often atone for a want of intrinsic value in an article, and inelegance has ruined many otherwise good papers.

A TREATISE ON EPIDEMIC CHOLERA AND ALLIED DISEASES. By A. B. PALMER, A.M., LL.D., Professor of Pathology, Practice of Medicine, and Clinical Medicine in the College of Medicine and Surgery in the University of Michigan, etc. Ann Arbor, Mich.: Register Publishing House. 1885.

This is a well printed octavo volume of 222 pages, embracing the consideration of Epidemic Cholera, Serous Diarrhœa, Cholera Morbus, and Cholera Infantum. The author devotes the first 67 pages to a brief historical statement of the progress of the chief epidemics of cholera in modern times, and a very interesting and impartial account of investigations in regard to the etiology of the disease up to the present time. While he gives to local meteorological and sanitary conditions an important if not controlling influence as necessary predisposing causes, he clearly favors the doctrine of a specific or essential cause, and that of an organic living germ. But after giving due weight to all the interesting microscopic researches of the last three or four years, he does not regard it as satisfactorily proved that the comma bacillus of Dr. Koch is the essential cause of epidemic cholera. The next 29 pages are occupied by a good résumé of the symptoms and morbid anatomy or pathological changes resulting from the progress of the disease. The next 43 pages contain a very full review of the current views concerning the Prophylaxis of Cholera. The comments of the author are characterized by sound discrimination and good sense The same good judgment, aided by personal experience, is seen in the full consideration which the author gives to the treatment of the disease, occupying 55 pages of the book The remaining 32 pages of the book are devoted to a very brief consideration of the diseases which the author calls allied to cholera This monograph is well worth a place in the library of every practitioner

THE FIELD AND LIMITATION OF THE OPERATIVE SURGERY OF THE BRAIN By JOHN B ROBERTS, A M, M D, Professor of Anatomy and Surgery in the Philadelphia Polyclinic, Surgeon to St Mary's Hospital 8vo, pp 80 Philadelphia P Blakiston, Son & Co 1885 Chicago W T Keener

This little volume, a reprint of the paper read by Dr Roberts at the last meeting of the American Surgical Association, is one of the most valuable monographs that has appeared in America for many years Its value consists in its brevity, its being concise and always to the point, and its wholesome disregard of traditions when experience shows that they are untrustworthy We have already expressed our opinion of this volume in the editorial columns of this week's issue of THE JOURNAL

ASSOCIATION ITEMS

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE PROFESSION IN AMERICA

HOW TO OBTAIN MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION

MEMBERSHIP —Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member He continues as such so long as he remains in good standing in the body from which he was originally sent as a delegate As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not Payment of annual dues entitles him to receive the weekly JOURNAL of the Association for one year

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Treasurer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society They pay five dollars annually thereafter, when notified by the Treasurer Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL

WHEN DUES ARE PAYABLE —The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter The payment entitles the member to receive the JOURNAL for one year from the following July Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer, but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia*

DEATHS —When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact

PAYMENT OF DUES FOR PREVIOUS YEARS —As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association

TRANSACTIONS OF THE ASSOCIATION —These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices The Index to these volumes will be forwarded on receipt of *One Dollar* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce

RICHARD J DUNGLISON, M D, *Treasurer*
Lock Box 1274, Philadelphia, Pa

MISCELLANEOUS

THIRD ANNUAL MEETING OF THE OHIO STATE SANITARY ASSOCIATION, TO BE HELD IN COLUMBUS, FEB 24 AND 25, 1886

First Session, 9 30 A M Standard Time, Feb 24 —Reading of Minutes of Previous Meeting, Report of Standing Committees, Miscellaneous Business "The Relations of Christianity to Public Health," E R Eggleston, M D, Mt Vernon "Mistakes in School Architecture," Prof P W Search, Sidney "Defective Vision of Children, causes and management, with reference to pupils in our common schools," D R Silver, M D, Sidney "The necessities of Physical Education," A H Brundage, M D, Xenia

Second Session, 1 P M Standard Time —"The Plague of Streets," Judge Silas H Wright, Lancaster "The Climate of the Staked Plains, with particular reference to Midland Texas as a Health Resort," C A Lee Reed, M D, of Hamilton "The Climate of Columbus," Starling Loving, M D, of Columbus "What our Country People should know about Drainage and Sewerage," H M Fisher, M D, Akron "Introduction of Sanitary Science in Villages," T G Barnhill, M D, Finlay "Municipal Sanitation," C L Van Pelt, M D, Toledo

Third Session, 7 P M Standard Time —To be held in Senate Chamber, Capitol Address of Welcome, His Excellency, J B Foraker, Governor of Ohio President's Annual Address, "The Progress of Sanitary Science," Prof Edward Orton, LL D , Columbus "Food and its Relation to Disease," J H Herrick, M D , Cleveland "Artificial Feeding of Infants," W J Conklin, M D , Dayton Annual election of officers, selection of next place of meeting

Fourth Session, 9 00 A M Standard Time, Feb 25 —"Condensed Milk," F H Darby, M D , Morrow "The Meat Question," E T Nelson, Ph D Delaware "Who is Responsible for the Iniquities of the Third and Fourth Generations, and how can they be avoided?" R Harvey Reed, M D , Mansfield "Domestic Hygiene," G C Ashmun, M D , Cleveland "Sanitary Plumbing and House Drainage," James Allison, Cincinnati

Fifth Session, 1 P M Standard Time —"Tests for Impurities in Water available for Physicians' Use," Curtis C Howard, M C , Columbus "Purified as by Fire," G S Franklin, A M , M D , Chillicothe "Bovine and Humanized Virus and Supply of Virus," H J Sharp, M D , London "Cholera and its Prevention," D N Kinsman, Columbus Miscellaneous business, introduction of officers elect, appointment of standing committees, adjournment The headquarters of the Association will be held at the Neil House

Arrangements have been completed for the usual reduction of rates on all the railroads centering at Columbus, members will be returned at one cent a mile

EDWARD ORTON, LL D ,
President Columbus

R HARVEY REED, M D , Sec'y, Mansfield

The following named railroads will return all attending the meeting at *one third* the lowest unlimited fare, provided they apply to the Secretary, R Harvey Reed, M D , Mansfield, Ohio, within a week or ten days of the time of the meeting, and obtain the necessary certificate for the same, giving the name of the road and the station they desire to start from

Baltimore & Ohio, Chicago, St Louis & Pittsburgh, Cleveland, Columbus, Cincinnati & Indianapolis, Cleveland, Akron & Columbus, Columbus & Cincinnati Midland, Columbus, Hocking Valley & Toledo, Indiana, Bloomington & Western, Pittsburgh, Cincinnati & St Louis, Scioto Valley, together with all the important lines between Pittsburgh, Wheeling and Buffalo on the East, and Chicago and St Louis on the West

Return tickets will be issued at Columbus during the meeting at *one cent a mile*, on presentation of certificate from the Secretary, to all who come, and paid full fare over the Toledo & Ohio Central R'y

---

THE PLYMOUTH, PENNSYLVANIA, WATER COMPANY, is reaping a whirlwind of legal action Fourteen suits have been brought against it in the courts of Luzerne county by the relatives of those who died of typhoid fever last summer It is probable that many more will be brought It is claimed by the plaintiffs that the fever had its origin in contaminating material which reached the water supply from a cabin on the banks of a stream which feeds the Plymouth reservoirs The result of the trial will be looked for with interest, as it will be difficult to prove the trail of a typhoid fever germ Should the plaintiffs succeed in recovering judgment for damages against the company it would tax the resources of it to a severe point, but there would be a warning to other water companies They will have to learn that the public health of which they are so largely the conservators, is a trust so sacred that they must use the utmost precaution to prevent the conveyance of disease through water they supply The water shed must be made a subject for the keenest scrutiny

If the plaintiffs in these suits recover damages it it may be a warning to cities who control their own works, as well as to private water companies It is a question whether a municipal government is not as liable when it supplies impure water as it is when a leg is broken by imperfect sidewalks The care of the water-supply does not receive the attention from the public that it should, and a few successful suits for damages will show the public that it is within its power to demand pure water —*Sanitary News*, January 16, 1886

SANITARY CONVENTION AT HOWELL, MICHIGAN — The Michigan State Board of Health will hold a Sanitary Convention, at Howell, on March 3 and 4

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM JANUARY 30 1886, TO FEBRUARY 5 1886

Major Richard S Vickery, Surgeon, assigned to duty in connection with the Army and Navy Hospital at Hot Springs, Ark (S O 24, A G O , Jan 29, 1886)

First Lieut A R Chapin, Asst Surgeon, relieved from temporary duty at Ft Robinson, Neb and to rejoin his proper station, Ft Laramie, Wyo (S O No 11, Dept Platte, Feb 2, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING FEBRUARY 6 1886

Babin, H J , Surgeon, ordered to U S Str "Vandalia"

Dixon, W S , Surgeon, ordered to Marine Rendezvous, New York, to relieve Surgeon Babin

Whiting, Robert, P A Surgeon, ordered to U S Str "Vandalia"

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED FEBRUARY 6, 1886

Bennett, B H , Asst Surgeon, died at Detroit, Mich , Feb 3, 1886

Watkins, R B , Asst Surgeon, to proceed to Detroit, Mich , for duty Feb 3, 1886

Pettus, W J , Asst Surgeon, appointed an Assistant Surgeon Feb 5, 1886 Assigned to duty at New Orleans, La , Feb 6, 1886

CORRIGENDUM

In the article on 'Coryza' by Dr Geo N Monette JOURNAL of January 30 on 4th line of 1st paragraph read *heating houses* instead of treating processes In 3d paragraph read *moss factories* for 'mop factories The formula at end of article should read Bismuth subnit ℥i, Iodoform ʒij S Apply locally

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, FEBRUARY 20, 1886. No 8

ORIGINAL LECTURES.

IMPERFORATE URETHRA—EXCISION OF THE SUPERIOR MAXILLA—REMOVAL OF AN ENORMOUS HAIR MOLE FROM THE FOREHEAD

A Clinical Lecture Delivered at the Mercy Hospital, Chicago,

BY EDMUND ANDREWS, M D, LL D,
SURGEON TO THE HOSPITAL

We have here an unusual case This patient is only eight hours old, and is brought here because the urethra is imperforate Examining the end of the penis, the mucous membrane extends smooth and glistening over the end of the glans without a sign of an opening where the meatus should be However, if I compress it laterally so as to throw the surface into wrinkles, there is a slight depression at the proper place for a meatus Absence of the urethral canal is generally due to hypospadias, in which case the channel is not strictly non existent, but is only uncovered, from the non development of its floor, so that it is an open groove In this case, however, the parts are anatomically finished, so to speak, but the canal was either never formed or it has become obliterated in utero You will, however, bear in mind that just as the prepuce is sometimes found congenitally adherent to the glans, so we may suppose the walls of the urethra to be in some cases adherent to each other The surgical literature of this subject is exceedingly scanty, because the cases are few It is asserted by authors that new-born infants may die of the obstruction Obviously our duty is first to see whether this may be a mere adhesion of the urethral walls, capable of being separated If so, we may avoid any more serious operation You will notice incidentally that this patient, though only eight hours old, takes its ether exactly like an adult, and seems to require fully as much anæsthetic in proportion to its size as any older person

If I now take a large probe and sweep it along the fold which marks the site of the obliterated meatus, using some firmness of pressure, I find the parts separate under the effort, and a true meatus appears without a drop of blood being shed Selecting now a metallic sound somewhat conical at the tip, but still blunt, and of the size of No 2 of the English catheter scale, I press it into the meatus There is considerable resistance, but holding the glans firmly, and pressing the tip slowly on in the line where the urethra should be, I find the instrument gradually advancing, and no blood flows We seem to be separating adhesions rather than perforating tissues The force required is a good deal, and there is doubtless risk of making a false passage, but that will not be an irreparable evil Patiently advancing the instrument in this way, you see that now, at the depth of an inch and a quarter, the tip of the sound enters a normal urethral canal and then glides on without resistance into the bladder

Ordinary surgical text books scarcely refer to the possibility of this operation except when the occlusion is so thin as to be merely a septum across the passage I was led to attempt it in your presence by another case brought to me a few weeks ago, which seemed almost precisely like this The child was two days old No meatus could be found Moderate use of a probe made no headway Discouraged in trying to reopen the natural route, I went behind the scrotum and cut down upon the urethra at the middle of the perineum, thus giving a temporary outlet to the urine After a time, owing to the contraction of the wound in healing, the flow of urine was impeded and some force was required for its expulsion One day, to the surprise of all parties, the urine burst suddenly forth by the natural route, where there had been merely an adhesion of the urethral walls, which yielded to the pressure of the fluid behind the obstruction In all probability, had I been more persevering, I might have succeeded by the same operation which I have shown you to day

Excision of the Superior Maxilla —Six months ago this patient had a small tumor on the gum at the seat of the second upper molar tooth It was removed by a surgeon, but it has returned again It is now nearly the size of a hen's egg, extending backwards to the last molar, and inwards to the middle of the hard palate The growth is too soft to be an osteo sarcoma It is therefore either ordinary sarcoma, or a carcinoma As the glands of the neck are not perceptibly affected, there is hope that it may be sarcoma. No microscopic examination has been made, owing to the haste of the patient We will remove the growth

First comes the extraction of the canine tooth in front of the tumor, to make room for dividing the jaw, next we divide the upper lip in the middle, carry the incision around the alæ of the nose, and thence straight upwards The second incision passes from the angle of the mouth upwards and outwards, and then we dissect off the cheek from the tumor and draw it backwards The duct of Steno is entangled in the growth, and must be sacrificed Professor Marshall, who is present with his dental engine, now divides the arch of the jaw, the nasal process, and the anterior root of the zygoma With a thin chisel I divide the arch of the hard palate and seizing the growth with lion jaw forceps, readily bring it away You see that it fills the antrum, without adhering to it except at its posterior and outer border These places have therefore to be cleared out with the gouge-forceps and bone-scoop, and the cavity cauterized with crystalized chromic acid Replacing the cheek by the aid of suitable sutures, we will return the patient to bed The operation would have been more hopeful of permanent success had I seen the patient earlier

Hair Mole of the Forehead—This infant has an enormous hair mole extending from the transverse suture of the skull forwards and down over the whole right side of the forehead as far as to the upper border of the eyelid The hair upon it is exceedingly thick, and darker than that on other parts of the scalp However, the dark eyelashes show that, as the patient grows older, her hair will become black, and match that on the mole The skin on the centre of the growth is nearly black with pigment, and thick and wrinkled

The immense size of the mole renders it necessary to consider carefully the wisest way of dealing with it No amount of electrolysis of hair bulbs will answer here The following plan promises best First I dissect the skin of the mole from the top of the eyelid and carefully take it away up to the place where the brow ought to be We must now make an eyebrow, which I will do by cutting two arched incisions, leaving a strip of the mole between them to match the form and length of the brow on the opposite side As we do not know exactly how the contraction of the wound in healing will affect the form and position of the new brow, I make it a little wider than is ultimately needed, so that at a future time I shall have room to trim it to an exact correspondence with its fellow Now I will raise the skin above the arch, and dissect it off as high as is necessary to give her a forehead as high on this side as on the opposite part I will not remove that part of the mole embraced in the limits of the hairy scalp because, as she grows older, it will match the rest of her hair in color, and by dressing it low on the forehead she will be able to cover nearly the whole cicatrix from view

Having thus removed all that is necessary of the mole, I take from the outer side of the patient's thigh some thin shavings of skin and graft them upon the raw area, to assist the process of cicatrization, and improve the smoothness of the surface In grafting for this purpose we shave the grafts very thin, but apply them in large pieces, from half an inch to an inch in length, which often adhere very perfectly I have had them succeed an inch and a half in length The result in this case will be to remove a hideous deformity, and to restore the patient to a reasonable degree of comeliness, and perhaps even to some measure of positive beauty

ORIGINAL ARTICLES

THE TREATMENT OF CICATRICES IN THE COLLUM UTERI AND IN THE ROOF OF THE VAGINA[1]

BY A MARTIN, M D,
PROFESSOR IN THE BERLIN UNIVERSITY CORRESPONDING MEMBER OF THE GYNÆCOLOGICAL SOCIETY OF BOSTON

When, as long ago as 1862, and then more fully in 1874, Emmet indicated the operative treatment of rents in the cervix, which he considered as the sources of a whole series of gynecological maladies, these conditions had, up to this time, been very little observed They had been recognized as the cause of a relatively infrequent eversion (E Martin) or of an ectropium (Roser)

Emmet, on the other hand, regarded these rents as the sources of catarrhs of the cervix and of the the *corpus uteri* He emphasized the difficulty and even occasional impossibility of healing these catarrhs as long as the rent exists He further pointed out that these scars are the source of long continuing, ever-spreading irritation in the pelvis Finally, he very particularly insisted that such rents hinder the proper development of the uterus, if it become pregnant, and that in consequence, in a great number of cases, abortion is occasioned by them, and that many women who habitually abort suffer from rents in the cervix His proposition to heal these by operation, to perform trachelorraphy, excited very extraordinary notice at that time, since it occurred just when far more attention was being given to securing a widely-gaping aperture of the uterus, and the influence of the bilateral discussion was supreme

Emmet's propositions made progress among the Americans very rapidly, considering all things, in Europe, however, it was quite the contrary, and this operation was received very doubtfully, especially in Germany, although at that time operative gynecology was in a state of active development First there was opposed to the method of Emmet the general disinclination in Germany to favor operative interference with the *portio vaginalis* Then the attempts which were made to perform trachelorraphy were not seldom followed by imperfect results, the old cicatricial formation soon showed itself again more or less, or, on the other hand, there was formed a stenosis, an evil which just at that time it seemed to be a duty to zealously overcome by discissions

But even when, in Germany, the plastic operations on the *portio vaginalis* in great numbers were well received, and authors like Breisky, Spiegelberg, and Schroder, and among others the writer, busied themselves with this operation, the operation of Emmet remained a rarity Although, perhaps not least by the recommendation of amputation of the *portio vaginalis* which I warmly advised in 1878, at the meeting of German Physicians and Naturalists in Cassel, as imperatively indicated for wider fields of usefulness, gynecology was led so far that excision and amputation of the lips of the *os uteri* were undertaken not solely on account of chronic metritis and malignant degeneration, and in Germany this operation became very frequent, yet, notwithstanding all this, strangely enough Emmet's operation did not come into the class of the frequent gynecological procedures. This seems somewhat strange to American authors, especially if, after a prolonged sojourn in Germany, they observe our daily work, and this impression is fully expressed in the late work by Bigelow ("Berlin a Medical Centre").

---

[1] Read before the Boston Gynæcological Society by E W Cushing, M.D for the author, on December 10 1885

The cause of this peculiar state of things, however, is not at all that we do not recognize the importance of the cicatrices, that we regard the removal of the latter as anything difficult, or that the permanent results of our operative interference on the cervix were unsatisfactory, but the question was first considered whether the cervical rents are really the essential cause of the troubles on which Emmet insisted. The answer to this question is that we see cervical rents causing no symptoms too often to permit us to reply affirmatively. There are either, (1) *Catarrhal complications i e, affections of the mucous membrane*, or (2) *Peculiar and rare cicatricial formations*, which give importance to the cervical rents, and in such cases these should be attacked.

There is not the least doubt that we frequently find *catarrhs as complications of cervical rents*. But in such cases the catarrh is not dependent on the rent as such. It has either originated as an independent disease simultaneously with the injury of the cervix, or it has occurred there later. Doubtless, then, the symptoms of catarrh are much more prominent. The development of the glands of the area affected, and the increase in volume connected therewith, cause a protrusion of the diseased mucous membrane, the torn *os uteri* gapes, the cervical mucous membrane protrudes swollen, and with its hypersecretion and its hæmorrhages shows the well known and very typical appearance. The glandular new formation which we must recognize as the anatomical foundation of the erosions, according to C Ruge's very significant investigations, also keeps spreading on the surface of the rent of the cicatricial tissue here developed, as it may also cover the whole surface of the *portio vaginalis* (see plates LIX of E Martin's Hand Atlas, edit II of A Martin). Undoubtedly these complications resist obstinately any therapeutic measures. This form of catarrh can only be healed by a careful treatment, so that such patients must frequently suffer very severely, and become chronic invalids.

Emmet prefers to cure this affection of the mucous membrane by patient local treatment, and then performing trachelorraphy. In Germany it is generally preferred, as it appears, to use a more energetic treatment of the affection of the mucous membrane, after some trial of what treatment with medicaments for a reasonable period can accomplish. In such a case, however, there is no object in making also a trachelorraphy as such. For it is better to combine the excision of the mucous membrane with that of the cervical cicatrices, amputate the vaginal portion. By this means, as a rule, a very well shaped new *portio* will be formed in place of the torn, everted, diseased one. The majority of cases of amputation, according to the method of Hegar or Schroder, or as I do it as a rule, according to a plan combining both of these (see A Martin's Pathology, Treatment and Diseases of Women, 1885, p 285), gives a stump where, after completion of involution, very frequently the previous operation can be as little discovered as the alterations which led to the operation.

But in the few cases which heal thus typically there is moreover a proper aperture of the orifice with the lips of the *os uteri*, and a covering of flat epithelium. I have repeatedly endeavored to combine the typical Emmet's operation with excision of the diseased mucous membrane, and Schroder has also attempted this. For my part, however, I have given up this method completely, and in these cases I practice simply the typical amputation.

The cicatricial formation of rents in the cervix goes on and terminates in very different ways. It may so heal, corresponding to the quick changes in the cervical tissues, that scarcely any hardness and scarcely any cicatricial tissue can be distinguished, either by palpation or by the microscope. In other cases the cicatricial ramifications extend far beyond the immediate vicinity of the rent. Thence arises a displacement by contraction of the cervix, and also of the the body of the uterus, which may disturb the physiological position and shape of these parts of the uterus in connection with respiration, and motion, and fulness of the adjacent organs, in connection with their changes during menstruation and pregnancy.

Severe consequences occur when the rent has extended into the *parametrium*, reaching the base of broad ligament and the roof of the vagina, and drawing them out of shape, and, in a unilateral affection, drawing the uterus as far as the wall of the pelvis, or in cases of bilateral cicatricial formation, fixes it in the middle of the floor of the pelvis. Such fixation shows its presence at every jar of the body, at every change of position of the uterus. On this account severe distress is occasioned in almost all stages of the development of the malady, frequently defying treatment by medicaments. Operative interference is called for in these cases, and with such indications we practice it with the best results.

Cicatricial formation limited to the cervix is commonly treated by us by the typical trachelorraphy of Emmet. The results of this operation correspond to the good success which Emmet himself reports from it. When the mucous membrane is healthy a good scar is formed, which in case of subsequent pregnancy neither shows itself as a hinderance to the development of the body of the uterus or cervix, nor during delivery is found to be a weak spot, easily torn in the external os.

In cases of extension of the cicatrices in the roof of the vagina I am accustomed to use a somewhat different procedure. I first separate the cicatricial tissue of the roof of the vagina and of the floor of the pelvis from the cervix uteri, and excise the former completely from its environment. Then, if the cervical mucous membrane be healthy, I refresh the scar in the cervix, and here also I remove thoroughly all cicatricial tissue. Then the sutures are put in in such a way that the wound which was first round or even gaping parallel to the median line of the floor of the pelvis, is united to form a scar running transversely through the roof of the vagina This scar running transversely through the roof of the vagina terminates in the end of the cervical rent, the latter is closed either according to Emmet's plan, or, if there be at the same time disease of the mucous membrane, an amputation of the lips, excision of the erosions, and curetting of the mucous membrane of the uterine body is performed The dissection of the cicatrix from the cervix is made with a pointed two edged knife, and seems easy to perform when the parts are put properly on the stretch with the patient on her back and the vagina held well open by a Simon's speculum and Hegar's holders (see A Martin's "Diseases of Women," p 24, fig 15) The wound gapes, often large arteries spurt (branches of the uterine artery), and require quick action in controlling the hæmorrhage, or on the other hand temporary ligation at the sides The womb falls away from the wound by its own weight towards the median line in cases in which it has been distorted towards the side

After sewing up the wound a normal configuration of the roof of the vagina is generally attained Convalescence in the cases observed by me was attended by no difficulties The final result, however, was surprising in the completeness of the removal of the severe symptoms which had accompanied these cicatricial contractions One of my former assistants, Dr Czempin, has undertaken the presentation of the detailed histories of the cases observed by me, so that I can refer to this work, which will soon appear, concerning the various particulars of the cases

Berlin, October 8, 1885

COCAINE AND OTHER ANODYNES IN OTOLOGY[1]

BY SETH S BISHOP, M D,

SURGEON TO THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY AND TO THE SOUTH SIDE FREE DISPENSARY

Before considering the newest and greatest remedy for annihilating pain, it will be both interesting and profitable to take a brief survey of the past history of anodyne aural therapeutics We sometimes look with pity on the semi intelligent, yet unavailing efforts of dumb animals to relieve themselves of great burdens or pains Similar sentiments are awakened by the scene which presents itself to our view as we look back into the darkness of the night of time, when the birth of the infant, Medicine, was attended only by the nurse of ignorance and the midwife of superstition In the presence of the great evil, pain, which all feared and none could conquer, the sufferer's friends looked on, helpless to relieve, or adding to the unfortunate's horror by crude, disgusting and aggravating remedies One can hardly believe the stories told of ancient practices until he reflects upon the superstitions of our own time Even now I know of a man who drives a thriving business by administering lobelia to every deluded mortal who applies to him for relief, and when the victim vomits, the mountebank exultingly points to the parts of liver which the patient is told he has ejected

In view of our own observations of human weakness and credulity, we should be prepared to look with consideration upon many of the worse than useless practices of the ancients To begin with Hippocrates a deceptive treatment has been imputed to him which he probably never practised He is cited as having recommended that "If any person have a pain in his ear, the physician should roll a bit of wool about his finger, and then pour some warm oil into the ear, and then, taking the wool in the hollow of his hand, he should hold it before the ear, in order to make the patient believe it has come out of it In order to make the deception complete, the wool should be at once thrown into the fire" The procedure is not consistent with what we know of Hippocrates, and moreover was not necessary, for he himself recommended the instillation of warm water into the ear for the relief of pain, and this treatment was sufficiently effective to preclude the necessity of practicing such a deception His warm water treatment is one commonly resorted to at this day, and has been advocated by numerous prominent authorities in medicine from his time to the present Apollonius recommended burned opium and castoreum Archigenes practiced venesection and warm baths to the ear Galen recommended warm wolf's milk or pepper mixed with old oil for earache from cold, but for inflammatory earache he used fat of geese and hens, and for severe pain, a mixture of opium, musk and white of egg, also castoreum, or a solution of opium in thickly cooked juice of fruit He took the precaution to use these remedies warm Cœlius Aurelianus employed leeches, cups, poultices and mustard plasters Marcellus's refined taste was pleased with nothing short of frog's fat, and, to cap the climax of æsthetic culture, Serapion spurns the aid of a being so primitive in the scale of creation as the frog, and soars to the loftiest pinnacle of perfection in the world's evolution, declaring that the fat of woman, and that fat only, cures earache His rule insists that the milk must be that of a woman who is nursing a female infant, if the patient be a boy

So familiar is the subject that but brief mention need be made of modern anodyne treatment as applied to the ear The popular domestic remedies are sweet oil, molasses, laudanum, roasted onion, glycerine and haarlem oil The exceptions to be taken to these are that the oils are likely to become rancid and irritating, and the glycerine and haarlem oil are too stimulating Moreover, the effects of most of these remedies are practically those of a poultice, namely warmth and moisture, and are generally to be deprecated Leeches afford more relief than any other topical treatment heretofore used by the profession Morphia sulphate in the form of Magendie's solution sometimes relieves I have been in the habit of prescribing it in 10 drop doses, warmed and instilled into the ear I have found it more effectual when combined with atropia, of the strength of 4 grains of the atropia to the ounce of Magendie's solution The warm breath, not blown, but breathed gently into the ear, with the open mouth close to the auricle, warm water and warm vapor, especially from chloroform, are sometimes very grateful, but chloroform should never be poured into the ear Warm tobacco smoke passed through a pledget of cotton placed lightly in the external meatus has proved very mitigating In many cases of acute otitis media which have come under my treatment before the discovery of cocaine, I have not been able to give patients such complete relief from pain as to secure sleep at night without exhibiting sedatives internally, such as chloral, bromide of sodium or potassium, and morphine

---

[1] Read before the Chicago Society of Ophthalmology and Otology February 9 1886

Cocaine is the last and best in the list, but the experience of those observers whose writings upon cocaine I have read, differs in so far from mine as that they seem to exclude the skin from its field of utility, whereas I have often applied it to cutaneous surfaces with the happiest results To be more explicit I have repeatedly employed it in aural diseases in which an acute inflammation was limited to the middle ear, when inspection disclosed the drum head in its integrity, the external meatus not being involved, and the tympanic pain was intense When I began using cocaine in these cases I employed a four per cent solution of the hydrochlorate I brought no other pain alleviator to my aid, but relied entirely on the new drug for relief My practice has been to warm half a dozen drops of the solution and instil into the ear, with the patient's head inclined to the opposite shoulder He is requested to maintain this position for five minutes, and before the expiration of that time the pain is invariably assuaged Usually not more than one or two minutes elapse before I inquire if the pain has ceased, and rarely has it happened that an affirmative answer was not returned before the expiration of two minutes If it be asked how it happens that pain produced by pressure on the nerves in the middle ear is relieved by a local anæsthetic in the external ear, with a layer of skin and connective tissue interposed between the medicine and the diseased membrane, I reply that it is the result of endosmosis

In acute otitis media the tympanic cavity contains mucus, if not muco-pus, by the time a patient seeks the aid of a physician Thus we have given a membrane intervening between fluids of differing densities, and a form of molecular attraction allied to that of adhesion, with the result of a rapid flow of the thinner fluid through the interposed membrana tympani, to become equably diffused in the thicker fluid contents of the middle ear This passage of the cocaine solution through the drum head is certainly a rapid one, for there is no room for doubt that it reaches the paining nerves in less than two minutes after impinging upon the membrane This rapidity of action does not appear so wonderful to one who makes a practice of applying the remedy to mucous surfaces, for almost immediately upon its touching the nasal or faucial mucous membrane the benumbing effect is realized The result for which I was least prepared was that patients usually reported that there was no return of the pain I was led by my experience with cocaine in hay fever and coryza to expect a recurrence of the symptoms at the expiration of an hour and a half or two hours

If I may be allowed to digress for a moment I will mention several facts of interest, though somewhat irrelevant By treating a carious tooth with cocaine I have dissipated a reflex earache, while curing the toothache I have operated on squint eyes under cocaine anæsthesia without producing any pain However, it is not a suitable substitute for atropia to relieve pain, for its continuous application to the cornea seems to produce opacities It dilates the pupil when used locally, whereas in toxic doses internally it is said to produce contraction On account of its primary inhibitory action on blood-vessels, little hæmorrhage occurs during an operation under its effects, but its secondary dilative action permits as free bleeding afterwards as though the remedy had not been employed I have prescribed a two per cent cocaine ointment in severe cases of thrush with the result of procuring sleep

There is still another particular in which my experience appears to have been unique When I have found it necessary to apply a counter irritant over the mastoid process and below the auricle, I have painted the parts with the essential oil of mustard, and allowed it to remain until the stage of vesication approached and the patient complained bitterly of pain Then the cocaine solution was painted thoroughly over the reddened surface, and in a few minutes the burning pain ceased Hence the question arises why may we not be able to control the pain of burned surfaces in the same way, and to relieve the burning sensation of erysipelatous inflammation, the itching and burning of eczema and kindred affections? I have frequently employed this remedy in painful inflammations of the middle ear when perforations of the membrana tympani have existed, but I cannot say that the results were more signal than in those cases in which perforation had not occurred I recall a case in which I made a crucial test of the efficacy of this new anæsthetic It has been my practice, after removing polypi, to cauterize the sites of attachments with mono chloracetic acid, to preclude a reproduction of those growths I have had under treatment a case of chronic suppurative inflammation of both middle ears, of thirty years' duration In either ear was a large fibrous polypus, in one it was so large as to extend beyond the opening of the external meatus The patient could hear nothing with the worse ear, and very imperfectly with the other, even when aided by a capacious ear trumpet I removed one polypus and cauterized its base, having ready a four per cent solution of cocaine in a medicine dropper When the pain from the acid reached its height the cocaine was dropped upon the burning tissue, and in a moment the pain distorted countenance was transformed into a happy expression of gratitude When I operated on the other ear I took the precaution of applying the cocaine thoroughly before resorting to the cautery The patient experienced no pain, and was loth to believe that the same treatment had been given

It will be readily understood, after reflection upon the mode of entrance of cocaine in solution through the drum head into the middle ear, why the solution and not an ointment should be employed, but the ointment of the same strength is better adapted to the treatment of furuncles, for it will remain longer in contact with the parts A powder which I employ in treating the respiratory passages may be used to cover furuncles, or to insufflate the middle ear when a perforation of the drum head is present The powder consists of six (6) parts of cocaine hydrochlorate and ninety four (94) parts of sugar of milk This makes an impalpable powder which will readily pass with a column of air impelled through a perforation in the drum head The instrument which I devised for insufflating cavities with powder is especially useful in this instance It consists of a stout bottle three inches high and two inches in diameter, with a soft rubber stopper There are two perforations extending vertically through the stopper, through which pass two vulcanite tubes The latter pass downward through the stopper, but do not extend below its under surface Above the stopper the tubes are bent in a curve so that their extremities point at right angles to their vertical portions To one of these extremities is attached a rubber tube and bulb The bulb contains a valve of soft rubber at either end, to prevent a regurgitation of the column of air sent into the bottle of powder, and a consequent dusting of the operator's clothing By varying the force with which the bulb is compressed one may project a small or large quantity of the powder into the ear at pleasure

There are other important effects of cocaine on mucous surfaces than that already mentioned After it has been in contact with mucous membrane about ten minutes, the mucous tissue presents a pale and contracted appearance, even if it were previously red, swelled and painful, as it is in thrush, coryza and hay fever This, together with the anæsthetic effect, may be taken advantage of in catheterism of patients in whom the inferior meatus is constricted, and lined with a hypersensitive membrane In those cases the powder is more conveniently applied than the solution, and the six per cent powder is susceptible of more general application than any other In mild cases of pain and hyperæsthesia I have found the two per cent preparation quite satisfactory

Although the primary effect of cocaine on mucous tissue is to cause paleness and shrinking of the membrane, there is a secondary effect which I have observed repeatedly, but which I have never seen mentioned by any other writer If the parts have been thoroughly anæsthetized, and especially if they have been kept in that condition for a number of hours by renewed applications of the remedy, there follows a considerable swelling of the membrane, which persists with more or less constancy for a day or two after the applications have been discontinued, and the subsequent hyperæsthesia may be found to be augmented

However, it must be conceded that cocaine has demonstrated itself to be the most important local anæsthetic that medical science has yet discovered But a few months old, in a therapeutic sense, its brilliancy of achievement has flashed like a meteor over the whole medical world So deep an impression has it made on suffering humanity that it has rapidly passed beyond the conservative control of professional men The laity grasps at anything that promises to be a boon—a panacea for all aches and pains An indiscriminate use results—an actual abuse of a remedy as potent for evil as it is powerful for good Already the cocaine habit has supplanted the morphine, alcohol or chloral habit A step in the right direction has been taken by the profession of New York, by the preparation of a bill for the Legislature, to place cocaine on the list of poisons to be sold only on physicians' prescriptions

Cocaine poisoning has repeatedly occurred, and in the midst of our own ranks, impaired health and temporary insanity are attributed to the excessive use of this drug So, while lauding its merits, let us manifest a just appreciation of its dangers, and erect lighthouses of caution with the victims who have fallen prey to its direful power But the history of medicine is like the history of men The greater the man, the grosser the abuse The better the drug, the worse is its misuse A note of timely warning should be sounded, and the duty of the conscientious physician done, for although one cannot be the keeper of his patients' wills, he should be a guardian of their health and morals

No 139 Center Ave , Chicago

THE FLAP EXTRACTION OF SENILE CATARACT

BY J W THOMPSON, M D ,

OF ST PAUL, MINNESOTA

Of all the methods of dealing with senile cataract that have at various times been detailed and advocated by different authors, the upper flap with an iridectomy has been attended with more uniform and favorable results than any other The flap extraction was first practiced without the removal of a segment of the iris The results thus obtained were superior to those by any of the other methods that had been previously practiced Statistics show that about ten per cent of the cases thus treated were lost Mooren, of Dusseldorf, in 1862 proposed the following method He first did a very free iridectomy, removing a large segment of the iris He then allowed the eye fully to recover, waiting perhaps three or six months as the case might require, when he made the ordinary flap upwards and extracted the lens This method has to day many advocates, and its advocacy is founded upon sound principles Small insults can be tolerated better than great ones It divides the operation into two equal parts, and likewise divides the danger to the organ The flap extraction is not, however, without its dangers

There may be diffused or defined suppuration of the cornea, or iritis, and in extreme cases of danger there may be not only iritis and suppuration of the cornea in conjunction, but every structure of the organ may be seized with an active form of inflammation which, with the unfavorable surroundings, would terminate in suppuration and its entire destruction Iridectomy is powerless to protect against the calam ity of diffused suppuration of the cornea, while it might exercise a good influence in the event of a threatened defined inflammation. It does, however, give a high degree of immunity from iritis. In every flap extraction accompanied with an iridectomy at the same time, iritis is one of the chief dangers to be anticipated. It is no exaggeration to say that nine tenths of the failures that occur in flap extraction when the iridectomy is done at the same time, have their origin in iritis.

When the iris is wounded and left without its natural lens support it is very much more susceptible to acute inflammatory action. Hence, when the iridectomy is done as a preliminary step the iris is left with its natural lens support and is placed under the most favorable circumstances for recovery, and thus the danger from iritis is almost if not quite removed when the subsequent flap is made for the removal of the lens. If the final operation be dextrously done the iris is but little disturbed. The upward flap with the iridectomy, of course, in the same direction, is preferable to the downward direction for two reasons. 1. The upper lid furnishes an excellent support to the flap and holds the corneal edges in close coaptation, a circumstance both essential and desirable for a rapid union of the parts. 2. The artificial pupil is covered by the upper lid, which not only obscures the deformity but prevents that disagreeable dazzling, an unavoidable concomitant when the pupil is made in any other direction. This method, however, of treating senile cataract has been objected to by many on the ground that the patient is subjected to the anxiety of two separate and distinct operations. This objection is, I think, in a very great measure overcome since the introduction of the use of cocaine as an anæsthetic in ophthalmic surgery.

When this agent is properly employed both the operations are rendered almost or quite painless. By way of illustration I had occasion to do an iridectomy a short time since, and after completing the operation the patient in a very complacent manner asked me if I would soon be ready to begin. When the first operation has thus been demonstrated to the patient to be painless while consciousness is undisturbed, the subsequent one is in a very great degree robbed of its anxiety. But it has been urged by some as a serious objection against the use of cocaine in the cataract operation that it diminishes the tension of the globe, thereby increasing the difficulty of the operation. This is another hair-splitting objection. Can any one tell why it should lessen the *tension* any more than atropine? Is it a fact that it does? It is a well recognized practice and I think a very good one, to drop into the eye a solution of atropine of sufficient strength to procure as wide a dilatation of the pupil as possible before operating. I have used both hundreds of times and have never been able to discover that the one diminished the tension any more than the other. Admitting for the sake of argument that cocaine is the more relaxing of the two, I think that the slight inconvenience to the operator is compensated in a twofold ratio. 1. It renders the operation almost or quite bloodless, and thus prevents that occasional and disagreeable occurrence, a chamber partially or perhaps wholly filled with blood from a bleeding iris. 2. The diminished tension lessens the chances of rupturing the posterior capsule, which might allow the vitreous to come forwards into the chambers, a circumstance highly to be deprecated.

The method of making the flap has been regulated by laws which give the greatest possible space for the exit of the lense with the least possible division of the structures involved. In entering the anterior chamber the point of the knife is directed towards the centre of the globe. As soon as the point has fairly entered the chamber the handle of the knife is carried backwards until the blade is parallel with the plane of the iris. In this position the point is shoved along till it passes the centre of the pupil. The handle of the knife is now depressed till the point reaches a position directly opposite the place of entrance, where it is made to transfix the cornea. The blade is still parallel to the plane of the iris, with its cutting edge directed upwards. Thus the blade, being parallel with the plane of the iris and the edge directed upwards with a gentle sawing motion, is made to divide the cornea till its extreme upper segment is reached. The edge is then turned upwards sufficiently to bring the plane of the knife perpendicular with the axis of the globe. In this direction divide the corneal substance till the conjunctiva is reached. From this point carry the edge between the conjunctiva and the sclerotic a half a line in distance, and then cut through the conjunctiva. This makes a little conjunctival flap which can be easily adjusted after the removal of the lens. The great vitality and vascularity of the conjunctiva render its union so rapid that a good support is made to its corneal edges.

A word in reference to lacerating the lens capsule may at this place be apropos. Instead of using the ordinary pricker or cystitome for incising the capsule of the lens I have, with very satisfactory success in a large number of cases, adopted a very different method. I employ the point of a Grafe cataract knife to split the upper segment of the capsule large enough to permit the exit of the lens. By this method the lens substance is shelled out of the capsule and the cortical substance is left behind where it is out of harm's way. At least that part of it is left which would otherwise float about in the chamber and come in contact with the iris and perhaps ciliary bodies, and thus act like a foreign substance and be a dangerous source of irritation. When it is left incarcerated in the capsule it is equally as readily absorbed, since the aqueous has free access to it.

The location of the flap has been much discussed at one time and another. Some advocate its location entirely in the sclerotic, others in the sclero corneal junction, while there are many who think it should be made wholly in the cornea. The reason assigned for making it entirely in the sclerotic is that this tissue heals more readily than the cornea. Experience has, however, proven this to be a fallacy. Admitting, for the sake of argument that there is a slight difference in favor of the sclerotic, it would be unquestionably more than overbalanced by going as near the ciliary region as is necessary to make the flap wholly in this tissue This is the dangerous region of the eye, and the wider one steers of it in any operation the less is the result jeopardized The sclero-corneal flap is, in a diminished degree, however, open to the same objections The reason, therefore, for making it wholly in the cornea is twofold 1 It is farther removed from the ciliary region, and 2 The experience of such men as the late Mr *Critchett, of London, confirms the assertion that this* tissue unites more readily than the sclerotic

There are some objective symptoms that are valuable in giving a prognosis as to the result to be obtained by the flap extraction The first of these is the condition of the pupil whether it be active or sluggish, whether it respond promptly to the influence of light and shade, and atropine The latter condition is the more favorable one, from the fact that the stiff, thick, sluggish iris is predisposed to iritis The muscle is partially deprived of its animal matter, its fibres are infiltrated with disorganized material which deprives it of its normal elasticity and power to resist inflammatory action Its vitality is lowered, and consequently its power to resist mechanical injury diminished Therefore an active pupil can in truth be said to be a favorable prognostic symptom Again, the flap operation should not be attempted when there is the slightest evidence of conjunctivitis Cure this first Neither the patient nor the physician can afford to disregard this one, little, important point The drainage apparatus of the eye should also be carefully inspected

When the extraction of the lens is completed, a collapse of the capsule is another favorable indication The reason for this is twofold 1 It is an evidence that the posterior capsule is intact, or at least that the vitreous has not been disturbed, and 2 That the cornea is in a healthy condition, as evidenced by its pliability These are some of the considerations that should govern one in giving an opinion as to the probable results of a flap extraction

Again, an extraction should not be done when there is any prevailing epidemic, such as cholera or any of the exanthemata The depressing influences of these upon the mind of the patient disarms, as it were, the physical forces, and thus, in the unguarded moments of nature, golden opportunities are thrown away and forever lost It is so unlike many other operations, since the slightest error may turn the tide of success and leave the patient in total darkness

The general condition of the patient's health should also receive the most careful attention In short, the more carefully every detail, be it ever so small, is considered, the greater will be the chances of success As the whole is composed of parts, so little ills combine to establish a morbid condition which may defeat the desired result The experience of the past few years has also wrought some very valuable changes in the after-treatment of flap extraction When the edges of the flap are brought into close contact with each other and all coagula carefully removed, the present practice is to close the eye, cover it with a circular piece of soft linen, and then fill up the orbital cavity with little pieces of carbolized cotton, equally distributed Before applying the bandage, place a few pieces of the cotton around the orbit in such a manner as to prevent too much pressure directly upon the eyeball I prefer a flannel roller, which should be passed around the head three or four times in such a manner as to cover the eye and give an equal support to the entire surface of the globe

The other eye should be covered as well, in order to insure perfect rest to its fellow The bandage and cotton should be changed every twenty four hours If all goes well, this is the only dressing that will be required The old practice of applying cold water dressing has been entirely discarded It washes away the corneal cementum and embarrasses the reparative process There are numerous emergencies that may arise, but to detail them here, with the various methods of treatment, would extend far beyond the limits assigned to this paper Before dismissing the subject, however, permit me to ask of my readers for any innovations on the established order of things contained herein, a resistance that loves to be reasonable rather than energetic

309 Wabasha St , St Paul, Minn

SOME PECULIAR CASES OF EPIDEMIC FEVER OCCURRING IN TOULON, ILLINOIS[1]

BY W T HALL, M D,
OF TOULON, ILLINOIS

The purpose of this paper is to give a history of a peculiar epidemic which recently occurred in Toulon, Stark Co , Illinois This history may, however, be prefaced by saying that Toulon is well watered, very few of the wells being influenced by surface water, and no cases of the epidemic occurred in the part of the town where the wells are so influenced The natural drainage is far superior to that of most towns, and the sewerage has been carefully, scientifically and methodically cared for

Having lived in the town for forty years, having known all the epidemics of the town, and having only known of one family before in which typhoid fever originated and went through the whole family, I was at a loss to account for this abrupt appearance, and persistent protraction The number of cases thus far have been twenty six, the ages ranging from 11 to 67 years These have all been typical, well marked cases, though many others in the different families in which the disease has appeared have had some of the premonitory symptoms, but no further development

Nineteen of these cases came under my care, and in speaking of this epidemic I will only describe those under my own personal observation The first patient was taken sick July 27, 1885, and they have continued to make their appearance up to the present writing (November 9) The premonitory symptoms for the first ten days are those of typhoid fever, with the exception of more lassitude and more catarrhal trouble On the eleventh day in thirteen of these cases, and in the remainder on the twelfth day, de veloped the trouble which was to be predominant through the course of illness. Four cases were pronounced typhoid with well developed catarrhal fever as a complication. The only symptom lacking in these cases was the typhoid eruption, and that was lacking in all the cases. One of the peculiarities of this epidemic has been that no two cases in the same family have been exactly alike. For instance, I have treated three cases in two families. In the one, the typhoid element was predominant, in the second the malarial, and in the third the catarrhal. The ringing in the ears was present in all, was the first symptom complained of and lasted through the whole course, increasing in severity, so that by the seventh day it became so pronounced that it was almost impossible to make the patients understand anything said to them. The tongue in two cases was red and glossy, in three brown, in the remainder white and flabby. In fourteen tremulous, and in seven pointed.

---

[1] Read before the Military Tract Medical Society, on November 10 1885

The stomach was exceeeingly irritable in sixteen of the cases, this commencing on the fifth or sixth day, and lasting from twenty to twenty five days. The ejected matter was bilious all through the course. The liver was engorged, and tender over the right lobe, in every case forming one of the first complaints, and lasting to its termination. Hæmorrhage of the bowels occurred in four cases very severely, in one case mild. It occurred in two cases on the fourteenth day, in one on the twelfth, and in one on the twenty-ninth. In all of these cases the red tongue and tenderness in the iliac region were absent.

The hæmorrhage lasted in one case four days, in one six, in one three, and in one one day. The last passage in all the cases resembled beef's liver, both in color and consistency, more than anything to which I can compare it, there were no clots, but a congealed mass. There was hæmaturia in three cases, coming on from the eleventh to the thirteenth day, but it never occurred in a patient who had hæmorrhage from the bowels.

The parotid gland was enlarged in six cases on both sides, in five on one side. The enlargement commenced on the fifteenth day in all the cases save one, and in that on the eighteenth day. Abscess formed in but one case, and I opened that on the fiftieth day, no pus being present until that time.

There were convulsions in three cases, in two on the fourteenth and one on the seventeenth day. In two I attributed them to reflex action from the bladder, which I shall describe farther on, and in one to hereditary tendency to chorea. In the two of reflex action recovery took place, in the choreic, death was the result. One had two convulsions, one five, and the fatal case nine.

There was delirium in four cases, it being the delirium of typhus rather than of typhoid fever. The remainder would answer the questions coherently, yet upon recovery, the twenty-five or thirty days' period of illness was a perfect blank. There was no muttering, no wandering except in the four cases mentioned, and they were of that wild uncontrollable type, with the ringing metallic voice found in the delirium of typhus fever.

The temperature was an even one, with nothing of the zigzag found in typhoid fever. In seventeen cases it ranged from 100° to 100.5° F., in one 104°, and in one 105°. So the antipyretic treatment with quinia was indicated in only two cases. The temperature in the seventeen cases did not vary half a degree at any time for twenty five days.

Syncope occurred in three cases, in one on the seventeenth, one on the fourteenth, and one on the twenty second day, in one of the cases lasting fourteen hours.

Epistaxis took place in all the cases from the second to the third day. In the most of them it was mild and subsided after two or three days. In two it was severe and came on every few hours for twenty three days.

The catarrhal complications were not only present in all the cases, but caused by far the most pain, and were the hardest to control. Some of the cases would be upon the bed pan six hours out of the twenty four, and one of them told me who had had three children that she suffered more each time in passing water than she had done in labor.

The urine was scanty, highly colored, and very offensive, frequently not over a teaspoonful after an hour or two of hard straining. It was in the two cases of convulsions I have referred to as being caused by reflex action, as both cases went into convulsions while passing water.

Diarrhœa was present in all the cases except one, and that was the one that had the hæmorrhage from the bowels only one day. The discharges were bilious, and the most offensive I ever experienced.

All the patients had a peculiar smell, unlike any odor with which I am acquainted, but just as pronounced as is that of measles and small-pox. In fact, by the second day, I could tell by the smell those coming down with this trouble. The night sweats were severe in only two cases, but occurred in eleven. I omitted to state that the catarrhal affection extended along the whole track of the nose, the Eustachian tubes, and the ear. The fatal case died on the seventeenth day. The eighteen cases that recovered were bedfast from twenty-three to sixty days.

These, I believe, are all the points of interest, save a few words as to the treatment. The first patients presenting themselves with a brown dirty tongue, and many of the symptoms of a bilious attack, I gave them calomel and jalap in powder, 10 grains each, followed in six hours by a Seidlitz powder. But I soon found that I had cases that were going to be protracted, and that I had to guard well my patients' strength, and that persuasion rather than coercion should be followed. I found that 2 grains of calomel, with 3 grains of bicarbonate of soda every second night, was preferable, with 5 grain doses of bismuth through the day. I gave quinine in from 5 to 10-grain doses every two hours through the whole course of the disease, except in the two cases in which I wanted the antipyretic effect, in those I gave to one 25 and the other 40 grains, in the evening, for four days, at which time the temperature came down to 101.5° F. and remained so until recovery. Instead of aural symptoms from the large doses of quinine, the hearing became better, convincing me that a malarial poison was at the bottom of all these peculiar phenomena, else there would not be such a tolerance for the drug Turpentine, so useful when the tongue is red and glossy, was not admissible at all, as the only cases to which I gave it had strangury in from six to nine hours after administering it It would produce that trouble even in 5 drop doses I found that balsam of copaiba and cubebs in capsules gave the only relief for the bladder trouble I gave them in capsules, as the stomach would reject them in liquid form

I gave ergotine for the hæmorrhage from the bowels, Dover's powder and camphor for the delirium, atropia for the sweating, bromide of potassium and bromide of ammonium for the convulsions, 10 grain doses of the potash, and 5 of the ammonium, every half-hour until the convulsive movements ceased For the syncope I gave the carbonate of ammonia and tincture of digitalis These drugs, of course, were given as indicated, while the quinia was never omitted until convalescence was fully established, and was then given for a week or more at lengthened intervals

---

COCAINE IN HAY FEVER

BY E FLETCHER INGALS, M D,

PROFESSOR OF LARYNGOLOGY IN RUSH MEDICAL COLLEGE AND PROFESSOR OF DISEASES OF THE THROAT AND CHEST IN THE WOMAN'S MEDICAL COLLEGE CHICAGO

In the issue of THE JOURNAL for February 6 appeared the report of a lecture on the above topic by Dr S S Bishop, in which cocaine is highly recommended for the relief of hay fever The writer also mentions the fact that the drug sometimes causes unpleasant effects and that it cannot be considered curative

In addition to what he has said of it I wish to call attention to an effect which I have frequently observed, viz Continued use of the drug renders it necessary for the patient to take more and more of it for relief, and finally the constant stimulation of the sympathetic nerves in the nasal tract causes paresis, with resulting swelling of the turbinated bodies, which may at length permanently obstruct the naris Dr Bishop states that no cure for the affection has been heretofore discovered, but in this I am confident he has made a mistake The surgical treatment which he says is "too recent to have afforded permanent results" is as certainly entitled to the distinction of being a curative procedure as quinine is entitled to that of being curative for intermittent fever It has now been in use for four years, and the cases thoroughly treated by it at first are still free from the disease I have treated many patients in this way, and every one of them in whom the treatment was complete escaped the attack last summer The writer suggests that the treatment may cause spasmodic asthma In this I fully agree with him, as anything which causes closure of the naris may cause asthma, but it is the exception with patients treated by this method, just as it is the exception for people to have asthma in whom the nares are occluded from other causes

It is true, also, that in his own case two applications of the galvano-cautery were followed by asthma, and that they did not cure the hay fever Two applications of the cautery never could cure the hay fever, for when the nasal mucous membrane is sensitive enough to cause the disease there is as much of it involved as can be safely cauterized in fifteen or twenty sittings

We must remember that in both nasal cavities there is an area of mucous membrane of not less than sixteen square inches, and sometimes half of this is involved, at the same time not more than one fourth or at most one half a square inch of surface should be cauterized at any sitting, and the last amount will be well borne only in exceptional cases

In conclusion I wish to reiterate my belief in the value of cocaine for the relief of hay fever, in which disease I think I was first to use it, but I wish also to direct attention to the ill effects which may follow its protracted use, in order that physicians may caution their patients against using more than is absolutely necessary

I wish, also, to assure the profession that they have in the surgical treatment a cure for the disease which may be relied on in at least nine cases out of ten

64 State St, Chicago, Feb 9, 1886

MEDICAL PROGRESS

DIGESTION ITS PHYSIOLOGY AND PATHOLOGY — PROFESSOR EWALD AND DR J BOAS publish (*Virchow's Archiv*, Bd ci, Heft 2) the results of a number of valuable experiments they have made on inmates of the Woman's Infirmary in reference to the physiology and pathology of the digestive act One of the inmates was especially suited for this purpose She was a young woman with a peculiar neurosis of the stomach, of an hysterical nature, in whom for the past six years vomiting had occurred spontaneously almost immediately on the ingestion of fluids, and from two to three hours after partaking of a solid meal Her appetite was normal and her general health good, and she increased in weight while in the hospital Repeated examinations showed the process of digestion to be normal Inspection of the contents of the stomach when she was fasting showed (1) that they were constantly free from aliment, (2) that as a rule the reaction was neutral, in a few cases slightly acid, (3) that neither free hydrochloric acid nor lactic acid was present, (4) that peptone was constantly absent This is in direct contradiction to what Schultz has recently stated—that the stomach, fasting, has its contents strongly acid To meet the objection that the act of vomiting might influence the chemical changes, experiments with the siphon stomach tube were made on other inmates of the hospital in whom there were no disturbances of digestion These gave results identical with those in the case of Seeger—the patient subject to vomiting By employing certain reagents, the observers were enabled to separate lactic acid from hydrochloric acid, and detect their presence respectively in the contents of the stomach On giving Seeger 60 grains of white bread, it was found that in ten minutes afterward the contents of the stomach gave a slight lactic acid reaction The reaction increased in intensity for thirty or forty minutes, after which the lactic acid began to disappear and free hydrochloric acid took its place As the latter increased, the lactic acid diminished, until a a stage was reached when it completely vanished They would therefore divide the process of digestion into three stages—the first, in which lactic acid is present but no hydrochloric acid, the second, or intermediate, in which the lactic acid reaches its acme and hydrochloric acid first appears, the third, in which the lactic acid rapidly disappears while the hydrochloric acid increases in quantity On giving the patient pieces of thin sliced meat, the same three stages were observed, but the duration of each was longer than when white bread was given The first occupied fifty minutes, digestion as yet had made but little progress, the meat fragments were still of a fleshy red color, and the transverse straiæ were quite distinct The intermediate stage extended to ninety minutes after the meat had been eaten Even yet the digestion had not made much progress, the reagents showing the presence of sarco lactic acid and a slight amount of hydrochloric acid In the third stage (ninety to a hundred and twenty minutes) no sarco lactic or lactic acid could be detected, while free hydrochloric acid existed in abundance With a fish diet exactly similar results were obtained Very convincing evidence that the lactic acid is a product of fermentation of the food taken, and not a secretion from the stomach, was afforded by the experiments of giving the patient egg albumen alone The examination of the stomach contents did not show the presence of lactic acid in any of the stages Quite different were the results when potatoes, which are a great producer of this acid, were given Lactic acid was detected as early as ten minutes after eating, and persisted for a long time To fully comprehend the strength of the position they take in reference to the rôle played by lactic acid in digestion, another of their experiments must be related They allowed the patient to masticate 30 grammes of thin sliced meat and 20 grammes of white bread These were divided into five equal portions, one portion of each was treated with a 0 3 per cent solution of hydrochloric acid They were all put into the incubation oven for three hours at a temperature of 40° C , then left for seventeen hours at the temperature of the room There were thus four portions 1, 15 grammes of thin sliced meat, 2, 15 grammes of thin sliced meat plus 10 c cm of a 0 3 per cent solution of hydrochloric acid, 3, 10 grammes of white bread, 4, 10 grammes of white bread plus 10 c cm of the 0 3 per cent solution of hydrochloric acid These, on being tested, gave the following results 1, strong lactic acid reaction, no peptones, no sugar, 2, also strong lactic acid reaction and slight peptone reaction, 3, strong lactic acid reaction, 4, no lactic acid reaction A strong antagonism, they say, exists between the two acids If the digestive act is interfered with in any way, the lactic acid stage is lengthened in duration An interesting fact in connection with this was noticed in the patient Seeger During menstruation the period of digestion was prolonged, and so was that of the lactic acid Delayed digestion would, therefore, go hand in hand with the persistence of that acid in the stomach Therapeutically, the authors would only say this much in this paper that the results of their experiments place the selected diet-tables in a new light All those articles of food considered difficult of digestion are known to be great lactic acid producers The addition of hydrochloric acid not only supplies the essential acid of digestion to the stomach, but causes the lactic acid to disappear, thus removing a factor of delayed or prolonged digestion The authors are still continuing their investigations, and promise to make known the further results in a future paper —*New York Medical Journal*, February 6, 1886

THE STRUCTURE OF THE PANCREAS —MR VASILY SOKOLOFF, soliciting the degree of "magister of veterinary sciences," selected for his inaugural work the study of the minute structure of the pancreas during its rest and action (*St Petersburg Inaugural Dissertation*, 1883, pp 48, and the *Arkhiv Veterinarnykh Nauk*, Dec 1883) The structure of the quiescent gland was examined in dogs, cats, rabbits, horses, cows, sheep and pigs To study the alterations taking place in the gland during its physiological action, he killed dogs, cats and rabbits at certain periods (4, 5, 7, 10, 15, 20, 40 hours) after the ingestion of food or after a subcutaneous injection of pilocarpine The specimens were hardened in chromic acid, spirit of wine, tincture of iodine, osmic acid, muriate of gold, and Muller's fluid, and then stained with hæmotoxylin or picrocarmine The results of these investigations (carried out in Professor F N Zavarykin's laboratory) are summed up by the author as follows

1 The changes in the structure of the pancreas during its action, show that the process which takes place in it is identical with that observed in other glands of similar anatomical structure and function (salivary, pepsine glands, etc)

2 During its physiological rest, the secretory cells become granular and increase in their bulk ("as if swell"), their homogeneous zone being considerably diminished, or disappearing altogether

3 When the pancreas steps into the physiological action, the cells in which the homogeneous zone has disappeared, or is present only in the shape of an extremely narrow marginal strip, undergo disintegration, while the remaining cells show a diminution of the granular, and an increase of the homogeneous zone

4 At the same time, on the periphery of the alveolus there appear small homogeneous wedge shaped cells, which are gradually lodged between the former elements, and which replace the secretory cells destroyed [They are identical with Podvysotzky's "cuneiform cells," though viewed by Sokoloff in a different light]

5 Simultaneously, there appear round corpuscles in the interstitial tissue of the gland

6 These round cells (leucocytes), probably, serve

as a source from which the homogeneous cells in the alveoli are originated

7 Therefore, the destroyed secretory cells, to all probability, are replaced by new ones, which are developed from leucocytes wandering in the glandular interstitial tissue So far Mr Sokoloff

In a preliminary note in the *Vratch*, No 21, 1883, p 323, Dr Klavdia Ulezko opposes him from the beginning to the end of the matter, pointing to the results of her own investigations conducted in the laboratory, and under the guidance, of Professor M D Lavdovsky Her statements may be given thus

1 No destruction of the secretory cells ever takes place during the physiological action of the pancreas (as well as of the salivary glands, as proved by Professor Lavdovsky in opposition to Professor Heidenhain)

2 Hence, generally, there is no occasion to look about for any substitutes for the pancreatic secretory cells in relation to the regeneration of the latter, this would be the more superfluous, as the secretory cells are capable of proliferation themselves (as was first proved by Gaule)

3 No grounds whatever may be adduced in support of Sokoloff's views concerning the regeneration of the pancreatic cells from leucocytes The active condition of the gland does not stand in any connection with migration of leucocytes The latter—as far as the normal gland is concerned—are present only in too scanty numbers to be taken into any account No transitory forms or links between leucocytes and the secretory cells are (or could possibly be) observed Sokoloff's "homogeneous cells" are, probably, best explained by some defective methods of examination

4 Podvysotzky's "cuneiform cells" have no relation whatever to leucocytes, since they are nothing but artificial products —*London Med Rec*, Jan 15, 1886

Genital Tuberculosis —The interesting subject of genito urinary tuberculosis was dealt with by Dr Simmonds at a meeting of the Medical Society of Hamburg (*Deutsche med Woch*, 1886, No 1) Of sixty cases of tuberculosis of the male generative organs which he had observed, thirty five had been examined after death, and amongst these latter, the epididymis was affected in thirty-one cases, the vesiculæ in twenty-nine, the prostate in twenty six, and the testicle in sixteen—the vesiculæ and prostate being sometimes the starting point of the disease In cases of bilateral tuberculosis of the testicle, it is generally believed that the one organ has been infected by the other through the vas deferens and the prostate, but in two out of five such cases the intra-pelvic organs were entirely free from the disease, which could have been eradicated by a complete castration As to genito urinary tuberculosis, it was stated that the origin of the disease was more frequently in the genital than the urinary tract Of fourteen such cases, the kidneys were involved in only nine, the bladder in thirteen, the vesiculæ in thirteen, the prostate in twelve, and the epididymis in twelve, and clinical evidence was adduced in support of the view that tuberculosis of the urinary bladder is mostly a sequel—even after some years' interval—of tubercular epididymitis Returning to the cases of genital tuberculosis, it was stated that in thirty one out of thirty-five the lungs were more or less involved, but whether primarily or secondarily could not be determined There were three cases of acute miliary tuberculosis apparently due to caseous deposits in the genital organs The majority of the patients were between the ages of 25 and 50, but the list of sixty included two children aged 2 and 7 years respectively, and twelve cases between the ages of 50 and 80 The duration of the disease was most variable, in some cases lasting for years, in others only a few months The clinical features were described, and the differential diagnosis detailed Instances were given of retention of sexual power even in bilateral disease, and in two cases of unilateral disease healthy children were procreated No evidence of transmission of the disease to the wife was found, and Dr Simmonds confirmed the opinion that such transmission did not occur As to etiology, the histories of twenty-six cases showed inherited tendency in thirteen, eleven had suffered from gonorrhœa, four of which were associated with epididymitis, and in four there was a history of traumatism, and it was concluded that traumatism, gonorrhœal or other inflammation, may evoke genital tuberculosis in one who is already the subject of tuberculosis or is hereditarily disposed to it The prognosis in unfavorable, but castration may be performed where there is no evidence of involvement of the pelvic organs, and only slight changes in the lungs —*The Lancet*, Jan 23, 1886

Cobra poison —A paper by Dr R Norris Wolfenden, giving the results of a very thorough and careful chemical examination of the poison of the Indian cobra (*Naja Tripudians*), was read at the Royal Society on December 17 Dr Wolfenden appears to have shown conclusively that the poisonous properties of the venom are due to its albuminous constituents, and that it does not contain any alkaloidal body nor any poisonous acid The toxic properties of the venom are lost when the albuminous bodies are completely removed by processes well known to chemists, or are destroyed by the action of permanganate of potash, which oxidizes the albuminous bodies into oxysulphonic and other allied acids Three kinds of albumen are present in the venom Two of them, globulin, which is in largest quantity, and syntonin, act upon the respiratory centre, while the third, serum albumen, which exist only in very small quantities, probably produces paralysis of the motor centres Whether the poisonous properties of these albumens are due to some peculiarity of their constitution, or whether some hypothetical poison is linked with albumens of ordinary constitution, has not been ascertained, but the possibility of the proteids of the venom being themselves poisonous is rendered more probable by the observations of Schmidt Mulheim and Albertoni, who have shown that ordinary peptone, injected into the blood, may produce poisonous effects, causing a remarkable fall in blood-pressure, and destroying the coagulating power of the blood —*British Medical Journal*, Jan 9, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, FEBRUARY 20, 1886

RE INFUSION OF BLOOD AFTER AMPUTATION

In the *British Medical Journal*, of January 30, MR JOHN DUNCAN, of Edinburgh, has an article on "Re infusion of Blood after Primary and other Amputations" In this paper he gives an account of a case of railway injury, in which the left leg had been crushed, amputation being required at the lower third of the thigh The man had lost a large amount of blood on account of a tourniquet not being screwed up tight enough Eight hours after the injury the patient was pallid and collapsed, with a quick, irregular, and fluttering pulse, when it was perceptible Alcohol, injection of ether, and elevation of the limbs had scarcely any effect, and it seemed impossible that he could survive an amputation There seemed to be some hope in intravenous injection, however, and it occurred to Mr Duncan that the blood lost during the operation might be utilised

The patient was anæsthetized with chloroform, followed by ether (a method which, if the reader will pardon the digression, certainly has very great advantages in many cases) The limb was rapidly removed, and the blood which fell from it (about three ounces) was caught in a dish containing a solution of phosphate of soda "After the arteries had been tied, it was difficult to say for a time whether the patient was dead or alive, but I proceeded to inject the blood and phosphate of soda, mingled with distilled water in the last syringeful to increase the quantity In all, about eight ounces were thrown into the femoral vein on the face of the stump The quantities are not exact, because the graduated dish was necessarily flat to catch the blood, but are correct within a drachm, or at most two" The patient was put to bed, in front of a fire, and teaspoonfuls of weak brandy and water were given frequently By the time that he was in bed the pulse had become very perceptible, steadily improved during the night, and the man recovered

It is apparent that the dominant idea in this procedure is to save and utilise the blood, which would otherwise be lost, flowing from the amputated limb The loss or saving of a few ounces of blood in a case of collapse may make all the difference of death or life "No doubt," says Mr Duncan, "a simple saline fluid may for a time supply the means of working to the empty heart and vessels, but, in my experience, the benefit is only temporary—for one reason, because it is essential that the blood forming organs should act, and they require suitable nourishment, like every other part of the frame" We know how difficult it is to empty shattered limbs of blood, and a small or large quantity may always be caught at the time of incision and when the arteries are tied Mr Duncan has now carried out his method in a sufficient number of cases to permit him to speak with confidence as to its safety and value The idea occured to him, he says, from a considerable experience in transfusing blood from one person to another, and seeing how imperfect and sometimes dangerous are the ordinary methods of transfusion Mr Duncan relates an interesting case in which his house-surgeon, Dr Carmichael had himself bled to six ounces, and used the blood, mixed with the phosphate of soda solution, in a case of intra pleural hæmorrhage after resection of a rib for empyema The patient, though apparently moribund, rallied quickly and recovered

The solution of phosphate of soda used in one case was of 5 per cent, and one part of this was added to three parts of blood, but our author thinks that a slightly larger proportion is advisable, and has increased it in amputation cases In one case the soda solution was unintentionally made of double strength, and the mixture remaining after re infusion was not coagulated at the end of half an hour (The soda solution, it need scarcely be said, is used to prevent coagulation of the blood) For the introduction into the vein of the receiver Mr Duncan uses a short glass tube, of the size of a No 6 catheter, having a pen-shaped point "To its outer end, made slightly bulbous, about two inches of India-rubber tubing is attached A simple glass syringe, holding four ounces, whose nozzle fits the tubing, is perfectly effective" The temperature is kept up by surrounding it (the tube or syringe?) with boric lint, wrung out of hot water The phosphate of soda solution is kept in a graduated glass vessel floating in warm water, and into this the blood is received. The glass is purified by prolonged immersion in a solution of bichloride of mercury, and washed with aseptic water after removal from the antiseptic solution, and before being used.

When the operation is performed after an amputation, "the most convenient vein is selected on the face of the stump, the glass point is inserted, and a catgut ligature put round it. (The ligature is used to hold the glass point in the vein, and prevent escape of blood.) While the process of ligaturing the arteries is going on, the blood is caught by one assistant, who adds the soda solution as required, and is slowly injected by another. There is no time wasted, and the amount put into the circulation is precisely proportioned to what the patient would otherwise have lost, *plus* what amount of saline solution the surgeon may think right and appropriate to the case." This process of reinjecting the patient's own blood, very probably says Mr. Duncan, is incompatible with the use of spray or irrigation during the operation.

The method of preventing coagulation by phosphate of soda, and injection by means of the apparatus described, has been used by Mr. Duncan in several cases of pernicious anæmia. While we may justly object to applying the term re-infusion in such cases, the blood being obtained from another person, we must recommend the method for these cases in preference to the ordinary methods of transfusion of blood. In such cases a vein in the arm of the patient is exposed, and under it a double thread of catgut is passed. Blood is then drawn from the donor into the dish containing the phosphate of soda, and the two are gently mixed by means of a glass rod. An assistant fills the syringe while the operator opens the exposed vein of the patient, the lower thread of catgut being gently pulled upon to prevent hæmorrhage. The tube is now inserted, the upper thread tied around it with one knot, the lower one being secured and cut off short. The blood is then slowly injected, "the India-rubber tubing being pinched when the syringe required to be refilled." The upper piece of catgut is tied and cut short when the operation is finished and the wound is stitched up.

In cases of anæmia care must be taken to finish the injection before the blood coagulates, as the soda solution will only prevent coagulation for a certain length of time, and, on the other hand, the injection may be made too rapidly for the patient. Obviously neither of these errors can be well committed in employing the method after an amputation. Inasmuch as Mr. Duncan unintentionally doubled the proportion of soda solution in one case, and found that the blood remained fluid for half an hour after being mixed with the soda, there seems to be no objection to making the proportion of soda solution greater than one part to three. Could not this method be employed in cases of post partum hæmorrhage? While there are certain objections that may be raised to re-injecting the blood which has been lost in these cases, there is certainly no reason why the blood should not be obtained from another person. Of course the amount of blood lost in severe cases of post partum hæmorrhage is so large that the patient might die before the mixture could be properly made unless every preparation had been made. Still, this method may be carried out as quickly as some of the procedures that are recommended and used in these cases. Certainly for the treatment of collapse after post partum hæmorrhage it must be regarded as more safe than the intra-venous injection of milk, and very much more quickly performed. There is also a question whether it is not more to be recommended in cholera collapse than the intra-venous injection of salt solutions, which has been so much discussed in the foreign journals during the past two years.

THE RELATION OF CHOREA MINOR TO ACUTE ARTICULAR RHEUMATISM AND ENDOCARDITIS.

The latest contribution to this vexed question is in the *Berliner Klinische Wochenschrift*, No. 2, 1886, from the pen of DR. E. PRIOR, Privat Docent at Bonn. He gives the result of the painstaking investigation of 92 cases of chorea minor with special reference to its connection with endocarditis and acute articular rheumatism. In 87 out of the 92 cases the chorea was not complicated by any disease of the heart, nor could there be discovered the slightest trace or history of previous attacks of rheumatism. In one case, that of a girl 10 years of age, the patient was said to have had some affection of the heart several months before, but reliable facts concerning it could not be obtained. On the other hand, there was unmistakable evidence of an attack of rheumatic arthritis in the fingers of the right hand two weeks prior to the outbreak of the choreic manifestations.

Since experience teaches that evidence of endocarditis may be discovered *post mortem*, even when the most thorough physical examination *intra vitam* has failed to detect its existence, Prior thinks this case may be not unreasonably classified among those in which there is a combination of the three diseases in question. In four other cases there was valvular disease of long standing In three of them mitral insufficiency had been diagnosticated years previously, but there could not be ascertained any history of rheumatism The fourth patient, a girl of 19, had suffered with inflammation and swelling of the knee-joint several years before Although a definite connection between the valvular lesion and the chorea ought not to be asserted in these cases without further proof, Prior yet inclines to the opinion that the heart disease may have borne some etiological relation to the St Vitus's dance It is not impossible that a fresh endocarditis may have been lighted up at the time of the commencement of the chorea It appears, therefore, that in but 5 out of 92 cases, that is 5 4 per cent, can there be any suspicion of a connection between the chorea and endocarditis and rheumatism, while in 94 6 per cent of the total number, the chorea was absolutely free from these complications

There are other facts, also, which agree with his statistics, in Prior's opinion, in their opposition to Rogers's theory, that chorea and rheumatism are different expressions of one and the same pathological law It is notorious that St Vitus's dance is a disease of childhood by preference, whereas rheumatism, as a rule, attacks adults between the ages of 20 and 35 years Moreover, chorea occurs most frequently among girls, while rheumatism and endocarditis resulting from rheumatism are most frequently observed in males Furthermore, in those cases of chorea in which the disorder seems to have its origin in imitation of choreic companions, and "epidemic-like, invades whole schools," it certainly would be absurd to claim that all of its victims have been subjects of rheumatism or rheumatic endocarditis

On the whole, therefore, Prior inclines to the opinion that any etiological relation existing between these diseases and chorea, in so constant and definite a manner as to form a law, does not exist There cannot be in choreic individuals some diathesis, as suggested by Begbie, Watson, Branson and others, which finds expression sometimes in rheumatism, at other times in St Vitus's dance It is not unlikely, he thinks, that in some instances the disease may result from reflex irritation of the cardiac distribution of the phrenic nerve, as by a greatly enlarged heart This is in accord with the theory promulgated by Bright In other cases Prior believes it not improbable that emboli may occasion choreic manifestations, as maintained by Kirkes, Tuckwell and others He does not, however, support Broadbent's explanation which would attribute the occurrence of chorea to capillary embolism in the immediate vicinity of the corpora striata

Dr Prior's paper cannot be said to contribute any facts particularly new or original It is in accordance with the position pretty generally taken by his countrymen, which is conservative Germain Sée and Roger are ardent defenders of the rheumatic origin of chorea, or rather, of the identity of the two diseases Their figures show a strikingly large proportion of choreic cases complicated with rheumatism, and Roger goes so far as to declare that in every instance of St Vitus's dance it has been preceded, accompanied or followed by rheumatic symptoms There is considerable lack of uniformity on the part of German observers as regards the etiology of the disorder, but on the whole they are opposed to all the conclusions of their French neighbors Of 252 choreic patients observed by Steiner, of Prague, only 4 gave a history of rheumatism The English are also somewhat divided, but on the whole occupy very much the same ground as the French The contradictoriness of statistics concerning the relation between the two diseases is curious In 1846 Hughes published a report of 108 cases, of which but 14 gave evidence of rheumatism together with the chorea In 1856 he published 209 other cases, 104 of which were carefully examined In all but 15 of these either rheumatism or rheumatic endocarditis existed It is probable that the French and English observers have been somewhat misled in their conclusions by the great frequency with which rheumatism occurs in their climates Diversity of opinion likewise exists in this country Jacobi is reported to agree with Roger, while J Lewis Smith states that probably the majority of American observers incline to the conservative judgment of the Germans

The subject is an interesting and highly important one Notwithstanding the investigation it has received, it does not appear to be any nearer solution now than years ago There is ample opportunity for the clinical study of the disease, but it so seldom proves fatal, that the opportunity for a *post mortem* investigation of its morbid anatomy is limited Hence we fear the etiology of chorea minor will continue for years to come to be as great a riddle as at present

---

EDUCATION FOR THE WORK OF LIFE—"THE MAIN QUESTION IS, WHAT SHALL A BOY STUDY UNTIL HE IS CAPABLE OF DETERMINING WHAT PROFESSION TO CHOOSE?"

This question forms the closing sentence of a familiar letter from a valued correspondent who had been advocating a thorough and protracted study of Greek and Latin, or the so called *classical* course, as the most essential preparation for eminence in medicine or any other profession The question plainly implies that neither the boy nor his parents or guardians can properly determine what profession or calling in life will be best suited to his tastes and mental qualities, until he has attained an age sufficient to give a degree of maturity of judgment, but in the meantime the boy's education must be progressing, and we are asked, what shall he study?

We answer, *first*, that every boy should study thoroughly, persistently and accurately the elementary branches that constitute the foundation of all education By the time he has become well trained in the correct use of his own native language (the English) in reading, writing and speaking it with ease and accuracy, and has acquired a reliable knowledge of the more elementary mathematics, geography, and history, his mental faculties will have become sufficiently developed to enable an intelligent parent or competent teacher to discern clearly the important natural mental aptitudes and inclinations that characterize the boy And on a fair appreciation of these must be founded, not a choice of a profession or calling for life, but the further direction of his education, in the most profitable manner, until he reaches the age and knowledge of the professions and occupations of life to enable him to make his own choice

Perhaps the most important era in the educational history of every boy is the one we have just indicated as completing a knowledge of the fundamental branches of all education If his real mental aptitudes are correctly appreciated, and he is permitted to enter upon such further studies as are congenial to him, whether they be in the direction of the physical and natural sciences, in the field of literature, history and art, or in the acquisition of ancient and modern languages, he will make good progress and will acquire real mental discipline, development, and useful knowledge for the work of after life To ask us to name some one definite course of study for all our boys, or even for all who are expected to choose some one of the professions, would be very like asking us to select one pattern and size of shoes to fit all the boys alike Almost all our best universities, colleges and higher schools provide not only the full *classical* course, but the "Latin scientific," and scientific courses, thereby affording a proper selection fitted for the different mental tastes and aptitudes of different scholars—and that boy will attain the highest eminence in whatever pursuit of life he chooses, who is guided at the proper age into that course of studies which is most congenial to his natural mental qualities To insist that a boy shall be drilled for seven or eight years in Greek and Latin when every lesson is about as repugnant to him as an old fashioned dose of an infusion of senna and salts, is an admirable method for making him an adept in the art of "shirking" and nothing else

It may possibly be thought by some that, in discussing this subject of early education, we are treading upon extra-medical ground But when it is remembered that the physician must deal with both bodily and mental ailments, and that one of his highest duties and most proper studies is the prevention of disease, and showing how it may be prevented, it will be evident that the discussion of the faults of education is certainly within the true professional field Physicians, and intelligent people generally, know that physical constitutions are different, and it seems strange that, in spite of the cumulative evidence of centuries, it is so seldom that people—and "educators" especially — recognize the fact that mental aptitudes, tastes and powers are as different, or more so, than physical constitutions It will be a bright day for humanity when parents and teachers open their eyes to the fact that boys are not pegs of the same shape and size, all to be stuck into the same hole No two trees are alike, and no two leaves on the same tree, and common observation shows that even the lower animals, of the same kind, differ in traits, instincts and mental capacity Who has ever seen two brothers, even twins, alike in mental capacity and aptitude?

ALFRED C POST, M D , LL D

In the death of DR ALFRED C POST, M D , LL D , which occurred at his home in New York, of cystitis, on Febuary 7, America has lost one of her most scholarly and distinguished surgeons, and one who, though he leaves no huge volume as a monument and evidence of his work and learning, will long be remembered for his marked dexterity and precision in operating, and his great mechanical ingenuity in devising new operations, new instruments and new appliances With these qualities added to an encyclopædic knowledge of the literature of his profession, and a rare goodness of heart and love for his fellowmen, it is not remarkable that he should have attained such eminence in his profession, or that he continued his work almost to the day of his death, having been in the active practice of medicine for almost fifty six years As is well known his work of late years has been mostly in the field of plastic surgery, and his contributions to this subject have been very many and very important

SOCIETY PROCEEDINGS

CHICAGO GYNÆCOLOGICAL SOCIETY

Regular Meeting, December 18, 1885

THE PRESIDENT, DANIEL T NELSON, M D,
IN THE CHAIR

W W JAGGARD, M D, EDITOR

DR W W JAGGARD read a paper entitled

TWO RECENT MODELS OF THE AXIS TRACTION FORCEPS

The object of the paper was not the description of some modification by the writer, although such a contribution to the literature of the subject would be perfectly legitimate in view of Pajot's witty remark to the effect "that he does not reproach a man for having invented a forceps, since that might happen to any one"—(*Barnes*)

Breus and Felsenreich, formerly assistants respectively in the third and first obstetrical clinics of the Vienna General Hospital, have recently made important alterations of Tarnier's axis traction forceps The importance of these modifications was so great that no apology was demanded for calling attention to the instruments

As the result of the labors of Sir J Y Simpson, Nageli, Busch, Levret and others, the low forceps operation may be regarded as a comparatively perfect operative procedure, both as regards instruments and modes of operation The case is different with the high forceps operation This operation is always difficult, and sometimes dangerous, with the instruments mentioned The cause is obvious The applied force can be resolved into two components, one in the direction of the axis of the plane of the inlet, the other perpendicular to the first, directed towards the posterior surface of the symphysis The first component is alone active in causing the descent of the head, the second makes the extraction more difficult, and exposes the maternal tissues between the head and symphysis to traumatism As remarked by Schauta (*Grundriss der Operativen Geburtshilfe*, Wien, 1885, p 162), "the unphysiological, and therefore mischievous element in the operation of the forceps, as compared with the effects of uterine contractions, when the head is at the inlet, consists in the fact that the forceps draws the firmly held head in a direction which it can never follow, while the uterine contractions simply drive the head into the pelvic cavity, and permit it after that to seek the direction of least resistance" The older obstetricians, fully recognizing these facts, attempted to apply the power to the classical forceps in such a way as to secure a more favorable direction of traction Osiander (1799) and Stein, Sr (1805) may be mentioned among the older obstetricians who devised instrument for making traction in the axis of the inlet Hermann (1844) (Kilian's *Armamentarium lucinæ novum*), constructed an instrument in which an iron lever is attached to the lock J P Hubert (1860) attached a vertical iron lever to the extremities of the ordinary forceps This lever was subsequently attached to the lock Eugène Hubert, his son, constructed an axis traction forceps with parallel branches and a sharp perineal curve Chassagny, Joulin, Pros, Poulet, Moralès Apaca (1871) and others, have constructed various types of axis traction forceps at a more recent period In many of the modern French instruments an attempt has been made to apply some of the well known principles of veterinary surgery

In 1877, Tarnier, following in the wake of Hermann, Hubert, and the more recent French investigators, constructed and published a description of his well known instrument Since that time, he has produced more than thirty distinct models His last model consists of the classical forceps of Levret (without a perineal curve), and axis traction rods attached to the posterior, inferior border of the blades, or spoons Tarnier claims a number of advantages for his instrument over any other axis traction forceps He claims that it is superior to the classical instruments in the following particulars

1 It is possible to apply traction in the direction of the principal pelvic axis

2 Sufficient mobility is conferred upon the child's head to permit it to seek its way through the pelvis in the direction of the least resistance

3 The handles indicate to the operator the direction in which traction should be made

With reference to the first proposition, it may be said that traction with Tarnier's forceps is not made in a curved line, accurately coincident with the principal pelvic axis, when the head is at the inlet Nor is traction in this direction absolutely necessary, as remarked by Schauta, seeing that the resultant of the forces, developed by uterine contractions, and the resistance opposed by the pelvic floor, does not propel the head in the direction of the principal pelvic axis

The handles, as indicators of the direction in which traction should be made, are of relatively slight value

On the one hand, the operator who is at all qualified to apply the forceps to the head at the inlet, ought to have a correct conception of the direction in which traction should be made On the other hand, strict attention to the handles may prevent the operator from observing a number of important events, ex gr, the relation of the head to the vulva, slipping of the instrument, etc (Schauta)

Finally, the handles are not a correct indicator of the direction of the principal pelvic axis

The advantage of Tarnier's forceps over its predecessor's lies in the mobility conferred upon the fœtal head by the joint, uniting the blades and the so called axis traction rods The head does not follow the direction of the principal pelvic axis, but seeks the path of least resistance In consequence, the operator is spared the fatigue of unnecessary effort, and the mother, the dangers of traumatism from violent traction

I Breus has recently constructed an instrument which has a great advantage over the forceps of Tarnier, in that a greater degree of mobility, during traction, is conferred upon the head The continuity of the blades (Loffel) is interrupted at, and below, the fenestræ, by a strong flat joint, which admits of movements in the sagittal direction, and corresponding variability in the angle at which traction is applied to the head. The superior ribs of the instrument are prolonged, and turned upward like spurs. These spur like prolongations are joined by a metallic rod in order to preserve a certain parallelism of the blades. Apart from these peculiarities the instrument is identical with the original model of Sir James Y. Simpson's forceps.

This instrument, devised by an obstetrician of large experience, is employed on an extensive scale at Vienna, in Gustav Braun's obstetrical clinic. Schauta (*Grundriss der Operativen Geburtshulfe*, Wien, 1885, p. 164, et seq.) recommends the instrument as the most perfect axis traction forceps in existence, to his classes at the University of Innsbruck. Furst's recent favorable note on Breus's forceps in the *Centralblatt fur Gynakologie*, 1885, is well known.

II. *Felsenreich's Modification of Dr. Alexander Simpson's Modification of Tarnier's Axis-Traction Forceps.*—In 1880, Dr. Alexander Simpson, of Edinburgh, sent to Dr. Carl Braun a modification of Tarnier's axis traction forceps, which at once superseded the French instrument in the first obstetrical clinic of the Vienna General Hospital. Simpson substituted Sir J. Y. Simpson's original model of the classical instrument for Levret's. The compression screw is located on the upper third of the superior surface of the handles. Comparatively unimportant modifications were made with reference to the traction-rods, and the hard-rubber handle, into which the traction-rod fits. Felsenreich has materially enhanced the value of Dr. Alexander Simpson's instrument by a number of important alterations.

Felsenreich's modification of Dr. Alexander Simpson's axis traction forceps, as shown by the model presented, manufactured by Mr. J. Leiter, of Vienna, during October, 1885, consists of the following parts:

1. A practically unaltered model of Sir James Y. Simpson's forceps (*Wiener Schulzange*).
2. Button-hole perforations, one behind each fenestra, into which traction-rods are inserted, and maintained by the buttons on the ends of the rods.
3. A removable compression thumb screw, which sinks into a groove made in the extremities of the handles of the Simpson forceps.
4. A hard-rubber handle for the traction rods. The arrangement for the insertion of the traction rods into the hard-rubber handles differs from the mechanisms in Tarnier's and Alexander Simpson's axis traction forceps.

The attachment of the compression screw to the ends of the handles, and certain changes in the curve of the axis traction rods, have been made at a comparatively recent period, but prior to 1883.

Dr. L. E. Neale, of Baltimore, published an article in the September number of the *American Journal of Obstetrics*, 1885, entitled "An Obstetric Forceps." In this paper Dr. Neale describes an axis-traction forceps, devised by himself, which differs in no essential particular from Felsenreich's modification of Alexander Simpson's instrument. Editorials have appeared in The Journal of the American Medical Association, September 26, 1885, and the *Therapeutic Gazette*, December 15, 1885, calling attention to the facts, that a forceps, identical with the instrument devised by Dr. Neale in all essential details, had been constructed several years before in Vienna by Dr. Felsenreich, and that Dr. Neale had probably forgotten the existence of that instrument, although he had seen it in active operation in the lying in ward of Carl Braun, in various courses on operative obstetrics, and in the shop of Mr. J. Leiter, the instrument maker to the Vienna General Hospital. The only criticism that the writer would make, with reference to these editorial notes, was, that Dr. Felsenreich, not Dr. Neale, applied the compression thumb screw to the ends of the handles. Dr. Neale has made some trivial modifications in the hard rubber handles and the mode of insertion of the traction rods. Dr. Neale made no allusion to Alexander Simpson's modification of Tarnier's instrument in the paper mentioned, and his allusion to Dr. Felsenreich's suggestion of the button hole joint is, to put the case very mildly, disingenuous.

In conclusion, Dr. Jaggard said that he was of the opinion that the axis-traction forceps of Breus and Felsenreich were superior to the most recent model of Tarnier's, or any other axis-traction forceps that had come under his observation. He requested that the discussion be limited to the comparative merits of the forceps presented—Breus's and Felsenreich's—and other recent models of the axis traction instrument.

Dr. John Bartlett said that he had devised an axis traction forceps in 1880, identical in principle with the instrument constructed in 1860 by the elder Hubert. His attention had been first called to the coincidence by Professor Lahs's monograph on *Die Achsenzug Zangen*, Stuttgart, 1881.

Dr. Henry T. Byford thought the instrument described by Dr. Neale in the September number of the *American Journal of Obstetrics*, 1885, was identical in all essential particulars with Felsenreich's modification of Alexander Simpson's instrument devised two or three years before.

Drs. Philip Adolphus, A. Reeves Jackson, H. P. Merriman and H. P. Newman had never observed indications for axis traction forceps, had never employed such instruments, and thought they were unnecessary.

Dr. Jaggard said he had no desire or intention to discuss the general subject of axis traction forceps, and had expressly requested that the discussion should be limited to the consideration of the relative merits of the instruments presented for examination, (Breus' and Felsenreich's) and other modifications of the axis traction forceps. He thought that gentlemen of limited experience in cases indicating the high forceps operation, and particularly those who had absolutely no experience with axis traction instruments, should be temperate in their criticism. Carl Braun, Pajot, Charpentier and others had practically rejected such instruments, but only after serious and experimental consideration of their merits. On the other hand, many younger obstetricians, including Schauta, Felsenreich, Breus, Ehrendorfer, thought there were cases in which they might be profitably employed.

Dr. Henry T. Byford then read a report of a case of

PELVIC ABSCESS, WITH REMARKS UPON THE TREATMENT.

Mrs. T., aged 25 years, married five years, German descent, of nervous temperament, small and slight in figure, but in good general health, consulted me, during the fall of the year 1884, for sterility and dysmenorrhœa. She had never menstruated without pain, but had otherwise enjoyed good health. An examination revealed a small uterus and cervix, with acute anteflexion and consequent apposition of the anterior and posterior uterine walls. Slippery elm tents, used about once in eight days, alternated with glycerine tampons, had for their effect a gradual relief of the dysmenorrhœa.

About the middle of the following February, I was called to her house to treat her for a severe attack of pelvic cellulitis, contracted a week before while returning home from a dance. The whole pelvic connective tissue seemed to be involved, and several large tender lumps could be felt externally in the left iliac region.

Six weeks from the beginning of the attack, an abscess opened into the anterior wall of the rectum, about two inches from the external anal orifice. On account of the extreme debility of the patient, her horror of operative procedures, and the absence of any well marked fluctuation, all surgical interference with the suppurative process had been out of the question. Palliative treatment was instituted and continued without effect until the 6th of June. In the meantime the pulse remained in the neighborhood of 120° F., and the temperature fluctuated between 99° F. and 102° F.; attacks of acute suffering and septicæmic diarrhœa required opiates for their relief, the bacillus tuberculosis was discovered in the pus, yellow pigmentary deposits covered her face, and emaciation became extreme, her weight ranging between eighty two and eighty three and one-half pounds. Her courage began to fail, and finally after the concurrent recommendation of the consultants, Drs. Wm. H. Byford, J. E. Owens, George M. Chamberlin and Martin Matter, she consented to an operation. Accordingly, on the 6th of June, Dr. Wm. H. Byford operated according to his usual method in such cases. After etherization, he forcibly dilated the sphincter of the anus, tore open the fistulous track with the finger, and then enlarged the abscess in the same manner, in the direction of the lowest part of the cavity, until it readily admitted two fingers. He then made a digital examination, and found the abscess to extend across the pelvis, behind the uterus and broad ligaments, above the level of the fundus uteri on the left side, and to be filled with bands and projecting masses of granulation-tissue of about the consistency of freshly coagulated blood. Previous treatment, except to diminish and control the septicæmia, had evidently been a complete failure. All of this medullary tissue was then scooped out with the finger and the cavity thoroughly cleansed with a two and a half per cent. solution of carbolic acid.

The higest temperature after the operation was 99° F., on the day following. Perfect drainage had been secured, for at the time of each dressing no pus was found inside of the abscess. The cavity of the abscess was treated by irrigation with antiseptic solutions, insufflation with iodoform and the introduction of cupric sulphate.

Early in September she was attacked with the then prevalent epidemic, dysentery, and died on the 23d instant. At the post-mortem examination, made about thirty hours after death, I was somewhat hampered on account of a promise, exacted by the husband, that no organ should be taken out of the body, and by the fact that I had but thirty minutes for work before train time. The body had again become extremely emaciated. Abdomen was flat. An incision was made from a little above the umbilicus to the pubic bone. The pelvis was filled posteriorly with a solid mass of plastic tissue, which had drawn the uterus backwards to within about half an inch of the sacrum, so as to put the anterior vaginal wall upon the stretch, and had buried the uterus and other pelvic organs in its substance. Both round ligaments were seen issuing from this mass. It was necessary to cut down about half an inch before reaching the depressed uterus, and to tear through solid tissue behind it to arrive at the rectum below. The finger broke through into the rectum, behind the dimpled cicatrix that marked the site of the former outlet of the abscess. The left broad ligament was then found to be represented by, or inclosed in, a tough band half an inch thick antero posteriorly, extending from the uterus to the left side of the pelvis. The left ovary could not be found. A small flat piece of what seemed to be ovarian tissue was found adherent to the bladder on the right side. The right broad ligament was apparently disorganized and inseparable from the plastic deposit. The rectum was held inflated at the point where it issued from the pelvis, was dark-colored and injected on its external surface, and blackish and softened on the internal. Neither the appearance nor the odor of an abscess could anywhere be discovered.

There seem to have been two hinges, as it were, upon which the treatment of this abscess turned: first, the operation per rectum, second the cauterization by sulphate of copper. Both secured a large opening at the lowest portion of the pyogenic cavity, and brought away the unhealthy granulation tissue. Had the patient consented to have the unobstructed outflow of the pus maintained by one or two subsequent dilatations, similar to the first one, the cure would undoubtedly have been more rapid. As it was, the contracting sphincter and abscess outlet rendered the drainage and irrigation imperfect. Progress toward recovery was, however, again inaugurated upon the melting away by the sulphate of copper of the newly and imperfectly formed cicatricial tissue, reproducing the opening made at the time of the operation and by the destruction of the degenerative deposits and cauterization of the chronic pyogenic surface. The only kind of treatment preferable to this free drainage and clearing out method is the strictly antiseptic, which, after the pus has once found a way into the rectum, can only be accomplished by first closing this septic inlet The treatment by a counter-opening in the vagina is much less preferable, because a recto-vaginal fistula, difficult of cure, and liable, like anal fistula, to inoculate the system with tuberculosis, would be left

The treatment by abdominal incision cannot for a moment be entertained, for at least two reasons

1 It is necessarily followed by a recto abdominal fistula of great length, which is incapable of being promptly cured, and is apt to become an unfailing source of systemic infection Those patients already operated upon, as far as reported, have usually either died shortly, or within a year or two, imperfectly cured They would have, on an average, lived about as long without the operation In fact, it is not impossible that one such, whom I had, previous to the operation, an opportunity of watching for a short time, would finally have recovered through the process of nature To operate as does Lawson Tait, before the abscess has discharged, and then treat it antiseptically through its single opening, is an entirely different matter

2 The danger of an abdominal incision should never be incurred without a prospect of compensation in the way of bettering the patient's chances of recovery Neither theory nor practice as yet prove such compensation to be attainable

In some cases one dilatation per rectum, without after-treatment, has sufficed for a cure, in other cases two or more, with subsequent antiseptic irrigations, have become necessary But as a general rule it may be said that, unless instituted too late, the procedure is safe and the recovery sure

DR CHRISTIAN FENGER said that when a peri-uterine abscess points somewhere in the vagina around the lower part of the uterus, no surgeon would, of course, think of doing anything but opening the abscess, inserting a drainage tube, and by washing out, endeavoring to effect the closure of the cavity But in some cases the opening into the vagina is just as ineffective as a spontaneous opening into the rectum In obstinate cases of this kind, laparotomy, at a later period, will have to be performed There is, however, no doubt that secondary invasion of septic poison, when the abscess is opened from the vagina, is much more difficult to prevent than invasion into the abscess from the abdominal opening It is only in this way that we can account for the difference in the course of the after treatment of peri-uterine abscesses opened through the vagina and through the abdominal cavity, a difference that Lawson Tait rightly calls attention to as being decidedly in favor of the abdominal operation Here the abscess closes more quickly, and the course of the after-treatment is much less febrile than in the vaginal operation

Sometimes a peri uterine abscess will point into the rectum, sufficiently low down to permit of an opening here It does not seem probable that the access from the rectum will be very promising, as effective drainage is next to impossible, but the cases of cure by spontaneous opening into the rectum evidently make an operation here permissible, and perhaps advisable, but only as a trial If the abscess does not retract within a reasonable time, other measures must be resorted to

It is needless to state that if a parametritic abscess points anywhere along the iliac fossa, it should be opened and drained from this point, but this does not belong to the subject of to night, as he desired to call attention only to strictly circum uterine abscesses, which can only be reached from the vagina or from the supra pubic region

When a circum uterine abscess does not point downward, and, in fact, does not point anywhere, it is then the surgeon's task to find the safest way into the abscess through a smaller or larger amount of surrounding tissues He first considered the vaginal operation When so eminent an authority as Schroder, of Berlin, advocates this method of reaching a high peri-uterine abscess there must be cases in which this operation is advisable From a general point of view an extra peritoneal outlet of the abscess through the vagina would seem to be safer than laparotomy, upon the same grounds as a vaginal hysterectomy is safer than Freund's abdominal hysterectomy, and Schroder's successful operation, already mentioned, vouches for the method

At the same time Dr Fenger firmly agreed with Lawson Tait, that there are some grave objections to the vaginal operation In the first place, a high seated peri uterine abscess is difficult to reach It is difficult to work with safety two or three inches above the introitus of the vagina, in tissues that are immovable, and where the parts cannot be drawn down toward the operator, These difficulties are, of course, of less importance in the hands of an operator like Schroder, but increase in significance for less experienced surgeons But the operation through the vagina is more or less an operation in the dark We may be dissecting up along the posterior surface of the neck of the uterus, and may open into recesses of the peritoneal cavity between the abscess and the uterus Further, it might be easy in this place to open into the rectum Another danger, especially in abscesses between the two layers of the lateral ligament, might easily arise from the rupture of the large uterine vessels running in the wall of the sac It would be exceedingly difficult, and he should say next to impossible, under such circumstances, to secure and ligate these vessels, the point of ligation being so high up, the working space so small, and the tissues so immovable

All these objections and dangers we do not encounter in laparotomy We can see distinctly, and recognize with our own eyes, every particle of tissue we have to divide, the large uterine vessels, if divided, can easily be taken up and ligated There is no risk of having any communication between the abscess and the peritoneal cavity, which we cannot either close up or drain If the laparotomy last longer, and gives more technical work to the surgeon, it seemed to him that these objections are fully balanced by the advantage of not being obliged to work in the dark, of not having to battle with enemies that we cannot see, and consequently cannot guard against

But these are not the only advantages of laparotomy, as compared with the vaginal operation The free access to the whole interior of the abscess cavity has also to be taken into account By laparotomy, the abscess is laid open to about the same extent as a tubercular peri articular abscess We can examine the whole interior of such a cavity, and scrape off, or remove by other means, whatever objectionable material we may find, cheesy matter, tuberculous tissue, fungoid granulations—since we can see clearly every place where the instrument is applied, without any danger of going through the abscess wall into any surrounding cavity or organ It is more than possible that this free access to the abscess wall has something to do with the speedy recovery subsequent to laparotomy, as compared with the vaginal operation[1] But, of course, there will always be connected with laparotomy the inherited dread of opening that ominous peritoneal cavity Modern surgery, however, is making steady progress in diminishing these dangers Thus, the dread, as well as the safety of the patient will, to a great extent, rest in or depend upon the care and skill of the operator

Dr W H Byford did not wish to comment upon the contents of the paper, further than to express himself in reference to the mode of operating adopted in consultation with the gentlemen mentioned A large number of pelvic abscesses can be managed through the rectum with more facility and safety than any other medium of approach to the deep seated portions of the pelvic cavity He did not know whether there are any cases situated wholly in the pelvic cavity but that can be reached, opened and evacuated through the rectum It may not always be the most eligible direction to approach collections of pus In instances in which the pus is making its way toward the vagina, and fluctuation can be felt through the vaginal walls, it ought to be evacuated through that canal, but when the point of discharge is not thus indicated, the exploration is most easily made through the rectum, and all chronic cases that have already commenced to discharge into the rectum can and ought to be treated from the cavity of that viscus He would make no exception, however high the opening might be, so it was within the pelvic cavity By proper preparation the whole length of the rectum can be reached, from the sphincter to the promontory of the sacrum and from any part of it the pus evacuated, the pyogenic cavity explored and drainage and irrigation safely and securely accomplished He believes the dangers of this mode of operating to be incomparably less than by abdominal section, and the other results of the operation—such as drainage and disinfection—more complete

To effect the objects mentioned, the sphincter should be stretched to laceration, and until there is no tendency to immediate contractions of the anal opening, and till it can be dilated to the full extent of the rectal cavity Thus thoroughly opened, the whole extent of the rectum can be explored with great facility, and often by means of dilators can be seen, and instruments used under the eye of the operator If the pus is to be sought after, palpation with the fingers becomes easy and satisfactory, if it is being evacuated, the orifice seen or felt and such treatment as is desired applied He very much prefers stretching and tearing for the purpose of increasing the size of the orifice to the use of cutting instruments The opening will not so readily close, and there will not be so much hæmorrhage In effecting the discharge of the pus, we should remember that the reason why the pyogenic cavity is at no time wholly obliterated is because there are irregular loculi or pockets so situated that they do not empty themselves The opening should therefore be made large, the parts torn by the fingers until this inferior margin of the opening is as far below the main body of the cavity as practicable With the fingers the interior bands and partitions should be completely broken down, and the interior of the cavity rendered as nearly symmetrical as possible This will enable the whole of the contents of the cavity to escape by means of gravity, and the fluids used in irrigation find their way out without difficulty In addition to the shaping of the cavity, the large granulations—generally so abundant—should be scraped away by the fingers or by a dull curette, thus freshening up the lining membrane of the pyogenic cavity, and converting it from a state of indolent ulceration to one disposed to heal This process of curetting also produces a change in the capillary circulation that makes nutritive processes more salutary Often in very indolent cases the sphincter will recover contractile power to such a degree as to require one or more repetitions of the operation The same thing may be said of the margin of the orifice in the intestine We will be obliged to enlarge it and treat the cavity as before

In the case narrated in the paper, the action of the sulphate of copper seemed most useful, and contributed the last influence necessary to the cure He has said nothing about the more common items of treatment, such as irrigation, disinfection and stimulation His intention is to show the facility with which, in many instances, these purulent collections can be reached and treated by dilating and distending the rectum, and the comparative safety of such proceedings

Dr E C Dudley said that the experience of Dr Byford and others in the treatment of pelvic abscess by this operation must be considered as proving the great value of the operation in cases in which the abscess can be easily approached and thoroughly drained by dilatation of a sinus between the abscess-cavity and the rectum It would, however, appear on general principles, that sufficiently free and long continued drainage would in many cases be almost unattainable, and that an abscess cavity left thus to heal must often be the starting-point of sinuses formed by the uncontrolled burrowing of pus in many directions The almost inevitable invasion of the abscess cavity by fæcal matter is clearly a serious factor in connection with the history of these cases The great mortality from pelvic abscesses opening spontaneously into the bowel demonstrates the inability of nature to provide for adequate drainage Whatever question, therefore, we may raise relative to the advanced position of Dr Wm H Byford, who, if practicable, would prefer to open a pelvic abscess through the rectum—even in those cases in which nature has not anticipated him—there can be no question about the propriety of enlarging and rendering more effective an opening already formed He regretted that the essayist had marred a most admirable contribution by the sweeping statement that in all cases in which drainage has been spontaneously established through the rectum Lawson Tait's operation is contraindicated Nor can he imagine from what premises he has formed the conclusion that Tait's operation prevents closure of the sinus between the abscess cavity and the rectum The question naturally arises, whether Tait's operation might not in such cases fulfil a well recognized surgical indication by establishing a free counter opening for an abscess which otherwise might refuse to close on account of imperfect drainage and on account of its forming a blind sac for the retention of fæcal matter To a larger number of recognized authorities, who deem an opening into the rectum, whether produced by nature or by art, a grave misfortune, the query would naturally arise whether such an opening ought not to be supplemented by a counter-opening, which would bring the draining and cleansing of the abscess cavity within the easy and absolute control of the surgeon Furthermore, in view of the decided mortality which attends the spontaneous opening of pelvic abscesses into the rectum, and in view of the almost uniformly successful results recorded in the statistics of Tait's operation already published by Mr Tait and others, and in view of a very generally accepted rule that the operator, in opening a pelvic abscess, should strive to keep out of the rectum, he does not think a statement that the rectum is to be preferred as the site of a primary operation ought to go on the records of this Society unchallenged

---

[1] Lawson Tait op cit

Dr J T Jelks (present by invitation) thought a great mistake was made in waiting too long before operating in cases of chronic pelvic abscess

Dr Philip Adolphus thought the paper was beyond the pale of criticism When the general symptoms indicated a collection of pus, the cavity should be searched for If a cavity containing serum was found, an operation was contraindicated If the cavity contained pus, it should be evacuated

Dr H T Byford, in closing the discussion, objected to the quotation of Lawson Tait's statistical triumphs in this connection In the last edition of Tait's *Diseases of the Ovaries*, abdominal section is recommended for those pelvic abscesses only that cannot be successfully evacuated from below They are generally such as are situated high up, and do not point early in the vagina or rectum, or they are suppurating hæmatoceles The statement that the recto-abdominal fistula, left after abdominal section for a pelvic abscess that has already discharged into the rectum, would heal readily, like any artificial anus, is not borne out by facts Fistulæ connecting the rectum with the external air have seldom healed, when left to themselves, before a long period of time had elapsed Operative measures cannot (in these cases) be resorted to, on account of the length, situation and relations of the fistulous track

GYNÆCOLOGICAL SOCIETY OF BOSTON.

Stated Meeting, December 10, 1885

THE PRESIDENT, HENRY O MARCY, M D,
IN THE CHAIR

H J HARRIMAN, M D, SECRETARY

Dr J C Fox, of Lowell, presented

A SPECIMEN OF MULTILOCULAR OVARIAN CYST, LARGELY SOLID,

which he had removed a few hours before The tumor was of six months growth, and was diagnosed as a solid tumor Dr Fox was of the opinion, however, that it was ovarian and cystic The operation verified this latter diagnosis Patient was 47 years old But slight hæmorrhage followed the operation

Dr Warner asked Dr Fox the grounds upon which he had based his opinion that the tumor was ovarian and cystic

Dr Fox, in reply, said that in this case the uterus was of normal depth and was movable In fibroids he almost invariably found that the uterus was increased in depth and more or less fixed Dr Fox also cited a case of ovarian tumor of nine months growth which he had removed Four weeks prior to the operation excessive pain and vomiting suddenly came on Diagnosis of twist in the pedicle was made and verified by the operation The tumor was covered with lymph from inflammatory action, and was discolored and almost gangrenous from interference with its circulation Recovery

The paper of the evening, by Dr A Martin, of Berlin, on

THE TREATMENT OF CICATRICES IN THE COLLUM UTERI AND IN THE ROOF OF THE VAGINA,

(see page 198) was read by Dr C W Cushing, who also showed microscopical sections illustrating the pathological conditions of which the paper treated

Dr Warner did not fully agree with the sentiments so ably set forth in Dr Martin's paper He felt that the tendency of modern gynecologists is to exclude all treatment except operative measures At least many surgeons seemed to neglect all constitutional and mild local treatment in favor of the knife, ignoring and having no faith in drugs If this tendency becomes general the physician who is not a surgeon will have little to do except to be a looker-on in the practice of gynecology, while in reality more can be done with drugs in the way of local and constitutional treatment than can be accomplished with the knife He asked the gentlemen present what had been their experience in regard to the operation for repairing rents and cicatrices of the cervix, as far as concerned relief of symptoms previously complained of As far as he knew but few had been relieved by operation, as practiced here, of any of the symptoms of which they suffered Agreeing with Dr Martin that the rent was not of importance nor yet the cicatrix without a diseased condition of the cervical mucous membrane, he insisted that such diseased condition with the accompanying erosion and eversion of the cervical lips is caused by an irritating discharge coming from the cavity of the body of the uterus Unless the disease of the fundus is cured, and the discharge stopped, it will do no real good to sew up the cervix If the disease of the fundus with its acrid secretion is cured, however, the repair of the cervix is unnecessary, as the erosions can be healed, the eversion diminishes, and the patient gets practically well Dr Warner recognizes the wisdom of Dr Martin in attacking the disease of the fundus by a thorough curetting at the time of the operation, which, for as skilful an operator as Dr Martin, and in his own well appointed hospital, is doubtless a good treatment If Dr Martin, however, rested at the curetting without repairing or amputating the cervix, he would find that the patient could be healed without further operation

Dr Warner insisted that hereabouts, however, many gynecologists practiced operations for repairing the cervix without attacking the disease of the body, and that, perhaps from lack of skill and advantages of Dr Martin He had known of many bad cases of cellulitis, etc, caused by the operation without cure of the disease He playfully likened such incomplete treatment to excision of a section of the eroded upper lip in boys who do not keep their noses clean, and thought the latter operation not countenanced by surgeons

In answer to a question as to the proper treatment Dr Martin said that for curing the endometritis he was not able, in a few minutes, to gives rules covering all cases, as it was, above all, essential to consider the circumstances of each case, in a general way he relied largely on a proper regulation of the functions of the intestines and liver, and locally in the judicious use of iodine, acid carbolic, or even, in some cases, of acid nitrate of mercury As for erosions and eversions, the latter are usually kept up by cysts in or under the surface, sometimes pretty deep, these must be punctured and then the erosions heal easily under stimulating or sometimes escharotic applications, swelling disappears and the patient gets well, provided the endometritis has been cured, and not otherwise For the acrid discharge from the fundus is strong enough to cause not only erosions of the cervix, but also of the vagina, and in bad cases of the labia, thighs and abdomen, removing this cause the effects are easily cured

Dr E W Cushing defended the views which Dr Martin had set forth in his paper in regard to the pathology of these cases He asserted that there was no real erosion of the epithelium in those cases where the epithelium seemed to be absent, but that the gland tissue of the cervix which is normally limited to the mucous membrane or its immediately subjacent layers, increases to such an extent as to invade the other tissues This process sometimes goes on to such an extent as to lead to glandular degeneration of the entire thickness of the cervix In such cases he maintained that Dr Martin's operation was the only one which promised success—showing the hopelessness of the ordinary stimulating treatment often employed Dr Cushing exhibited several sections which, under the microscope, illustrated the pathology of these cases, he also showed sections of the pieces which Dr Martin had removed from the lips of the cervix He also showed the instruments with which Dr M operates, and by reference to the text book of the latter, which he brought with him, and by figures on the board, explained the details of position, etc, and the manner of employing antiseptics and enforcing surgical cleanliness, which enable Dr Martin to get such results Dr Cushing also referred to the danger that the glands, which grew with such rapidity, invading tissues where they do not belong, may in chronic cases begin to increase at such a rate as to be really malignant growths

Dr W S Brown thought the paper a valuable one, but feared that too much emphasis was put upon the *surgical* treatment of these cases He did not agree with those doctors who do so much surgery In his hands the majority of these cases yield to milder measures, such as thoroughly scraping the affected parts by means of the dull or sharp curette This method of treatment had yielded better results than local applications of carbolic acid or iodine In some cases, however, excision is the only efficient treatment When minute cysts are present in the cervix they must be punctured Proper constitutional treatment is of great importance and should never be overlooked

Dr Marcy said that twenty years ago in the Rotunda Hospital, at Dublin, the routine treatment of these cases consisted of applications of nitrate of silver in strength varying from 20–40 grs per ℥i This treatment of these lesions by local applications was slow and painful, and the profession has drifted into the surgical treatment of these cases

FOREIGN CORRESPONDENCE

LETTER FROM VIENNA

(FROM OUR OWN CORRESPONDENT)

Puerperal Fever—Statistics of the Lying-in Clinic—Laceration of the Perineum—The Enthusiasm in Austria over the Congress

In the Vienna school puerperal fever is known as septic infection, depending (1) upon the local lesion, (2) the infection of these local lesions Then follow (1) high fever and inflammation of the genitalia, (2 peritonitis, or pyæmia There are three varieties recognized *First*, Puerperal peritonitis, or puerperal endometritis, with a symptomatology of fever, unclean lochia, meteorismus, vomitus, and peritonitis Post mortem section shows *endometritis consecutiva*, salpingitis and *peritonitis purulenta*, with exudations *Second* Puerperal metro phlebitis or pyæmia without peritonitis, the septic virus passing through the placental insections to the uterine veins As symptoms we have High fever, chills, torpor, subinvolution of the uterus The abdomen is flaccid and painless on percussion There may be icterus and metastatic phlegmon *Third* Peritonitis plus pyæmia, or *lymphangitis uteri*, or *phlegmona pelvis septica*

The treatment is local when a woman begins to have fever on the second day *post partum* The external genitals and vagina are washed with a 1 2 per cent carbolized water, or with a 1-5000 sublimate solution When operations have taken place, and the lochia are pathological, and there is high fever, the uterus is irrigated, a glass tube being used Iodoform bacilli, containg 5-6 grms of iodoform, are placed in the uterus The formula used is

℞ Iod pulv	18 parts
Amyl puræ,	
Glycerinæ,	
Gum arabic	aa 2 "

Make 3 bacilli 5 6 ctm long Ice applications to the abdomen are used in *peritonitis incipiens* Ergot is used internally The antipyretics used are quinine, 1-2 grms daily, sod salicyl, 3-4 grms daily, antipyrin, 1-2 grms daily If these do not avail, the cold bath is resorted to Alcohol is used freely in pyæmia, but *never* in peritonitis In incipient peritonitis the following treatment obtains Ice pills, ice cataplasms on abdomen, opium by the rectum, and quinine by rectum In puerperal ulcers local applications of iodoform, or of iodol (which is expensive but devoid of odor), are resorted to Salicylic amylum (1 part of salicylic acid to 5 parts of amylum), has also its merits It has been found that the cases of puerperal metro-phlebitis, although attended with metastatic transference of the poison, forming abscesses and involving the lungs themselves, tend, in a large per centage of cases, to recovery, while those cases of puerperal peritonitis almost always end fatally Women seemingly moribund, in whom the whole system is poisoned, begin to recover as soon as elaborate metastatic action obtains These patients are given alcohol very freely.

Dr Emil Ehrendorfer (Ueber antiseptische—locale—Behandlung in der Geburtshulfe, *Archiv f Gynak*, Bd xxvii, heft 2), writing of the statistics of the Lying-in Clinic here, for the years 1882, 1883 and 1884, has furnished us with some very interesting data In 1882 the puerperal mortality was 0 51 per cent, in 1883 0 33, per cent , and in 1884 it was 0 32 per cent —this including three cases of Cæsarean section Puerperal fever in 1882 occurred in 4 31 per cent , in 1883, in 3 59 per cent , and in 1884, in 3 08 per cent , while other pathological diseases resultant upon labor fell from 6 17 per cent in 1882 to 4 87 per cent in 1884, and all this from a strict attention to antiseptics and cleanliness in every possible detail In these matters few people have a riper experience than Dr Ehrendorfer As first assistant to Prof Spaeth he is responsible every year for about 3000 labors

One is very much struck here with the rarity of perineal lacerations The matter becomes plain, however, when one sees with what tact the perineum is handled during labor The woman rests on her back until the head presses upon the vulva, then she is turned upon her left side, with the buttocks resting upon the edge of the bed, the legs well drawn up and kept apart either with a pillow or by an assistant The nurse sits on the right side of the bed, with her back to the face of the patient, the left hand is passed over the right thigh of the patient, and manipulates the child's head, the free right hand of the nurse keeps the perineum moist with carbolized water, and assists the left hand The patient is enjoined not to bear down, and the head is kept back forcibly, so as to prevent a too sudden birth The fingers of the left hand are occasionally run around the presenting part of the fœtal head, just inside the labia, or the head is gently moved toward the symphysis by a well directed action of the left hand The main thing is to keep the perineum moist and to keep the head back If there is thinning of the perineum, and a danger of laceration either lateral or bilateral, episiotomy is resorted to If there be immediate danger of a central rupture, an incision is made from the posterior labial commissure, creating a laceration of the second degree, which is operated on immediately after labor Lacerations of the first and second degree, and even sometimes of the third degree, are operated on immediately after the birth of the child, except when the woman's condition contra-indicates such a procedure For all minor lacerations serres fines are used I have seen several cases of hydramnios lately, and apart from other methods, the curves made with the women in different positions are quite sufficient to distinguish this condition from others which may simulate it

The enthusiasm here over the Congress grows daily, and I am quite sure that Vienna will send a large delegation to Washington I hope to be able to establish equal interest in Buda Pest and Munich I trust that the Executive Committee will publish full details, list of officers, modes of transit, arrangements for finding lodgings upon arrival, with the rules governing scientific papers to be read, in the leading medical journals of all the large European capitals At the meeting of the German Medical Society in Strassburg last September, members of the local committee met each train upon its arrival Large signs were placed in the station pointed towards a room in the station where the delegates could receive addresses of boarding-houses or hotels, together with prices and all necessary details Similar arrangements should be made at both stations in Washington, so that every member, upon arriving, could be directed at once to such a place as he desired The Secretary General of the Congress could also have assistants at the station, so that members could register immediately upon arrival, and receive all necessary instruction

H R B

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

The Charity Organization Society—Hydrophobia and its Treament—Dr Edson's Report—Gift to the College of Physicians and Surgeons — Death of "Aunty" Dubois—Permanent Drainage in Ascites—The State Medical Society, Officers for the Year

The fifth annual meeting of that admirable body, the Charity Organization Society, was held at Association Hall on February 1 It has done a vast amount of good by caring for the wants of the de serving poor, providing employment for those able to work, exposing impostors, suppressing street begging and discouraging indiscriminate alms giving The Society now has on file 100,661 reports, containing the names and histories of 71,332 families—equivalent to 285,000 persons, and one great benefit which it offers to the various medical charities is that by means of its well organized investigations these institutions can ascertain whether the patients applying to them are really deserving of gratuitous treatment or whether they are able to pay for medical attendance As long, however, as an institution like the New York Hospital makes a charge of one dollar a month for each patient treated in its outdoor department—thus making these people feel that they are not charity patients at all, and directly robbing the profession every year of large sums which they would otherwise receive from a class perfectly able to pay a fair compensation for medical services—there is perhaps little chance of accomplishing much in the way of reform as regards the abuse of medical charity On the occasion in question, among the speakers was the Rev Dr Wayland, of Philadelphia, who made a striking comparison of "the old charity and the new" The old charity, he said, saw a woman with a diseased child on the sidewalk, and gave her money As a result, in a few days there was a premium for diseased children on the street The new charity, as represented in this Society, gave the sick child into careful hands, put the mother in jail, and suppressed a nuisance The Charity Organization Society now has 1,084 members, 483 of whom have been received in 1885

At a recent meeting of the Clinical Society of the New York Post-graduate Medical School and Hospital, a discussion on *Hydrophobia and its Treatment* constituted the order of the evening, and in the course of it Dr W A Hammond said that when proper precautions had been taken within a reasonable time after a bite by a rabid dog, he had never known the disease to occur Many cases of persons bitten by dogs supposed to be mad had come under his observation, and the first thing that he did under the circumstances was to take steps to ascertain, if possible, whether the dog really had rabies or not If he had, or there was any doubt about the matter, he excised or cauterized the edges of the wound, first having applied a cupping glass to the part, or caused the patient or some one else to apply his lips to it and suck out the poison, the virus being innocuous unless there was some abrasion of the mucous membrane of the mouth He also applied ligatures in cases where this was practicable It had always been his opinion that the disease could be communicated to a human being only by means of the saliva, and thereore he was inclined to doubt the efficacy of the process practised by M Pasteur, but still he did not feel in a position either to deny or affirm the value of the alleged discovery until further investigations of the subject had been made

The statistics of reported deaths from hydrophobia in this city during the last fifteen years are as follows In 1870, three, in 1871, seven, in 1872, six, in 1874, five, in 1876, five, in 1877, four, in 1878, 2, in 1881, three, in 1882, two, in 1883, one, in 1884, one, and in 1885, one, occurring in the month of October

The annual report of Dr Cyrus Edson, Chief of the Second Sanitary Division, shows that during the year 1885, 7,000 specimens of milk were examined, and 1,701 quarts of milk destroyed by the officers of the Board of Health There was also ordered destroyed 72 700 pounds of candy, 540 pounds of head cheese, 546 pounds of poultry, 37,905 pounds of canned goods, 5,160 pounds of cheese, 4,000 pounds of pickles, 4,100 pounds of coffee, 790,410 pounds of meat, and 212,000 pounds of fruit The trial of Gen Alexander Shaler on a charge of bribery in connection with the selection and purchase of armory sites for the city, came off on the 26th and 27th of January, but the jury were unable to agree, and a new trial will be held at the next term of the Court of Oyer and Terminer, which begins February 15 It is stated that the jury stood ten for conviction and two for acquittal

Mrs William D Sloane, one of the daughters of the late Mr Vanderbilt, has emulated her father's generosity to the College of Physicians and Surgeons of this city by the gift and endowment, in connection with her husband, of a free maternity hospital, to be conducted under the auspices of that institution It will be a handsome building of brick and terra cotta, in the new college grounds, and no pains will be spared to make it a model structure of the kind Although the maternity will be under the control of the Faculty of the College of Physicians and Surgeons, its business arrangements are to be in charge of a distinct board of managers, consisting of five gentlemen The first board will consist of the President of the College, Dr John C Dalton, *ex officio*, Mr Wm D Sloane, representing the donors, Mr Cornelius Vanderbilt, representing the College board of trustees, and Professors James W McLane and Francis Delafield, representing the College Faculty

"Aunty" Dubois, a colored woman, believed to have been the oldest person in the State of New York, has just died at Newburgh on the Hudson, at the alleged age of one hundred and ten years She was born a slave in Ulster County, N Y, and was for many years the property of one of the Ulster County Dubois families, being freed at the time when the last few remaining slaves in the State were emancipated One of the venerable negress's sons, who resides in this city, is said to look even older than his mother did at the time of her death

At a meeting of the Academy of Medicine held on February 4, Dr M A Starr read a paper on *The Intra Cerebral Tracts—their Physiology, and its bearing on the Diagnosis of Lesions of the Centrum Semiovale*, after which Dr A G Caille read one on *Permanent Drainage in Ascites* Dr Caille related two cases of cirrhosis of the liver with marked ascites, in which he had inserted a drainage-tube into the peritoneal cavity at the linea alba, with the result of affording great relief of all the distressing and dangerous symptoms, and probably prolonging life for a considerable period In one case an autopsy could not be secured, but in the other one was made, when it was found that there was not the slightest indication of peritonitis at the point where the fistula was made No internal treatment was used in these cases other than a careful regulation of the diet, and the administration of acid phosphate

The President, Dr A Jacobi, in commenting on the paper, remarked that the procedure resorted to by Dr Caillé was an imitation of the method sometimes employed by nature in these cases It was not very uncommon to see in extensive ascites a spontaneous fistula established at the linea alba, or, more frequently, at the umbilicus, and he related an instance of this kind which had not long since been under his observation at the German Hospital He also related a case in which, after hearing of Dr Caillé's plan of procedure, he had inserted a drainage tube in the same way through an artificial opening in the abdominal walls, and he said that he considered this likely to form a very valuable addition to our present modes of treatment As to the medicinal treatment of cirrhosis of the liver, there was one agent in which he had by experience learned to place considerable confidence in a certain proportion of cases, and that was mercury It was well known that in many instances the interstitial hepatitis was only partial, instead of involving the entire extent of the organ, just as was the case sometimes in interstitial nephritis, myelitis and encephalitis In affections of this kind it was always a source of congratulation to the practitioner to find they were of syphilitic origin, on account of the prospect that relief would be afforded by appropriate treatment, but he had now become satisfied that in non-syphilitic cases also, if the trouble did not involve too large a portion of the organ there was often a fair chance of curing the patient by a course of mercurial treatment He had been taught to look with utter abhorrence upon the use of mercury, and for many years he never employed it at all in any form except in syphilitic cases, on account of its supposed injurious effects upon the system But during the last ten or fifteen years he had resorted to its administration with very good effect in the class of cases referred to It was necessary to select some preparation which could be given in small doses and kept up for a prolonged period, and he was in the habit of employing the bichloride This might be given largely diluted, in solution, but he preferred the pill form One-thirtieth of a grain three times a day was about the amount that would usually be required, and the patient should be instructed to use a chlorate of potash wash and carefully watch the condition of his gums

There has been quite a stirring up of dead bones in the old State Medical Society, which held its annual meeting in Albany on the 2d, 3d and 4th of February, occasioned by the remarkable success and the scientific interest of the first two meetings of the energetic young State Association Extra efforts are made to secure a full gathering of the clans, and the number of physicians in attendance, as well as of the scientific papers, a fair proportion of which were by men of prominence in the profession, was unusually large Among the papers was one read by Lawson Tait, of Birmingham, on "Methods of Diagnosis" The President, Dr Albert Van der Veer, of Albany, delivered the annual address in Assembly Chamber in the Capitol on Wednesday evening, February 3d, taking for his subject "The Water Supply of Cities and Villages," the conclusions arrived at in which are the following Water needed for domestic purposes should be taken, first, by gravity from mountain streams, lakes or springs, next, if the former is not possible, provided the surroundings are safe and proper in every respect, by the Gang syphon driven wells, next by a system of storage, so arranging the reservoirs that proper aeration can be employed, and, lastly, if necessity compels that it must be taken from sources known to be polluted, then a thorough system of filtration should be resorted to, and the water be as completely oxygenated as possible before distribution

The following officers were elected for the ensuing year on the last day of the meeting President, Dr Wm S Ely, of Rochester, Vice-President, Dr Sol. Van Etten, of Orange county, Secretary, Dr Wm Manlius Smith, of Onondaga county, Treasurer, Dr Charles H Porter, of Albany The following honorary members were also elected Lawson Tait, F R C S, Birmingham, England, Dr E N Bush, of Philadelphia, Dr James G Richardson, of Philadelphia, Dr F Hansen, of Copenhagen, Denmark

P B P

"THE STUDY OF MEDICINE AS A MEANS OF EDUCATION"

To the Editor of the Journal

Dear Sir—Allow me to say to your numerous readers that the paper on "The Study of Medicine as a means of Education," which you have honored with an editorial criticism, (see Journal of January 9, 1886) was read only in abstract, the original paper being much too long to be read in a limited period of time or to be printed at my own expense This will account for the apparent disproportion of space given to some features of the subject Moreover, the indirect method of argument has its disadvantages, but it also has some advantages As a literary production the essay is certainly defective, and yet I have received several very complimentary letters in relation to it from men in the highest positions in the profession There are yet a few copies for distribution among those who may be interested in the subject and who may apply to the undersigned

In this connection permit me to add a word in relation to the origin and mission of the American Academy of Medicine in which the paper was read It was organized in Philadelphia in 1876, when the State of Pennsylvania was grievously afflicted with fraudulent medical schools, at a time too, when it was impossible to obtain anything more, as a means of protection, than *bogus* medical legislation Thanks to a daily newspaper, the *Philadelphia Record*, for effecting, by the use of means known only to the secret service of the government, what the profession was not able to do, though several attempts had been made And thanks to the Illinois State Board of Health for a more systematic exposure of the nefarious traffic in medical diplomas It was organized, we say, when there was scarcely a ray of hope for the profession in Pennsylvania, when there were at least 2000 medical practitioners in the State, as is shown by recent registration, who had either no medical degree or had purchased one from these schools, and what we have still to regret, is this, that the greater part of them remain in our midst It is not too much to say that our legislature, our medical societies, and our medical journals were under the influence of these institutions and classes of practitioners A large representation of these were always in our legislature, and they assumed to know what were the wants of the professsion and the people The exposure came, however, and they could no longer face the odium Other States were passing through a similar experience, but certainly not so shameful

In the organization of the Academy under these circumstances, it was thought best to require for membership at least one academic degree besides the degree of doctor of medicine Whether such degrees may be invariably required will depend entirely upon the majority in the Association It may be truly said that degrees, either literary or medical, have very little signification, as regards mental capacity, education or professional skill This much, however, may be said in their favor, that they are conferred by independent groups of men representing institutions of learning which have a reputation to maintain They should certainly not be made the only test for membership in an educated body of men Those who have passed creditable examinations in the army and navy, and many others, should certainly be admitted

The Academy would scarcely have a reason for an existence were it not for the wide-spread evils to which we have referred It can never be more than a help in the profession, and should be welcomed as such The encouragement of a higher standard in which all its members may join, is its special work, but there is no good reason why any topic pertaining to medicine or to the medical profession should not be discussed in it

An objection may arise in the mind of some, that the Academy is based upon "classical, scientific, and literary schools" and courses of study in them This is indeed the fact, but it is also true that our profession is based upon these schools and courses of study whether we recognize it or not These schools were formed by our fathers, and they simply accepted the experience and judgment of educated men in other countries than ours It is plain that young men must get their education in these institutions, such as they are, or go without an education The medical student will never amount to much until he has spent ten or twelve years at very faithful and patient study at something, and I am shut up to the conclusion that he had better spend *half* this time in classical, scientific, and literary schools in laying a good foundation With the permission of the Editor of The Journal, I may some day express myself more fully on these topics

Very truly,
R Lowry Sibbet, M D

Carlisle, Pa , Feb 11, 1886

[It must be apparent that we could not give our correspondent credit for that portion of his paper which was not printed, we naturally presumed that we had the entire article before us when we wrote If the reader will turn to our editorial article in The Journal of January 9, p 43 *et seq* , it will be seen that we have not criticized the objects of the American Academy of Medicine, but the requirement for membership that the applicant must be a graduate of an academic college It will also be seen that we did not criticize the literary merits of the article, nor can we agree with the author that it is "certainly defective" from a literary point of view Our whole criticism was leveled at the pernicious doctrine that a man *must* have a *classical* education, and a diploma from a classical college, before he is fit for the study of medicine (or any other profession) Our correspondent's article, as it came to us, contained no mention of the value of "classical, scientific, and literary schools," it referred to classical schools only And while it mentioned the value of mathematics and the languages, it contained no reference to the value of scientific studies It is not entirely correct to say that "classical, scientific, and literary schools were founded by our fathers " Our fathers and grandfathers founded *classical* schools, but none which deserve the names "scientific" or "literary" Nor have our fathers (or we) "accepted the experience and judgment of educated men in older countries than ours " Their dogmas have been accepted without question, along with much bad judgment, and those of us who pin our faith to classical studies are flying in the face of experience instead of accepting it, for, unfortunately, having experience and being guided by it are very different matters We will be pleased to have Dr Sibbet give his views on these topics at any time —Ed]

THE RECENT MEETING OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY

To the Editor of the Journal

Dear Sir —In the issue of your journal for January 30, your Philadelphia correspondent enters somewhat fully into the history of the last business meeting of the Philadelphia County Medical Society He speaks of "the informally presented candidates " Now in order that it may be fully understood how nominations for delegates from this Society to the American and State Medical Societies are made, I will quote part of Art XII, Section IV of the By Laws which reads as follows "At the stated meeting in June, a committee of five members shall be constituted, two of whom shall be appointed by the President, and the remaining three elected by ballot, which shall be called the nominating committee At the stated meeting in October, this committee shall present a ticket of candidates for election to the different delegations of the Society "

This committee was constituted in the manner prescribed by the By-Laws, and made their report at the stated meeting of the Society in October, which report was accepted The "informally presented candidates" which your correspondent speaks of, were nominated in secret caucus by a self-constituted committee, composed of members unknown to a large part of the Society This list of "informally presented candidates" had never been seen by those of the Society who were not supposed to be in accord with them until the day of election, when it was read, and by methods heretofore unknown to the Society made to take the place of the ticket proposed by the legally constituted nominating committee

So anxious was the self constituted committee to make a ticket to suit their purpose, that they placed in nomination two who were not members of the Society, and twenty-four others who were not eligible as delegates under the By-Laws when the regular nominating committee made their report

The nominating committee, although constituted in the regular way, was accused of being packed, and of packing the delegates for both the American and State Medical Societies in the interest of the action of the American Medical Association, at its last session in New Orleans It has been ascertained since the election, that twenty of those nominated in the regular list for the American Medical Association, voted for the "informally presented candidates," twenty for the regular ticket, and five could not be accounted for This does not look much like a packed ticket in the interest of a faction

I regard the course pursued by that part of the Society in opposition to the regular ticket as uncalled for and the precedent established a dangerous one for, the best interest of the Society I will not allude to the great interest taken in the meeting, of which your correspondent speaks, further than to state, that the proceedings were of a character entirely unbecoming to a body of medical men

MEMBER OF THE NOMINATING COMMITTEE
Philadelphia, Feb 11, 1886

MISCELLANEOUS

SPHYGMOGRAPHY IN A BALOON — Ascensions in baloons are now so frequent that we are in possession of many of the physiological phenomena that attend the sudden alteration of pressure M Pozzi has taken some tracings with the sphygmograph at a height of 2150 metres A rapid rise with brief maintenance and rapid descent, disturbed by well marked dicrotism, were the chief features of the sphygmogram The peculiarities are, in relation with the lowering of arterial pressure, due to the sudden rarefaction in passing to the higher strata of the atmosphere They form the counterpart of the experiments of Viveriot with compressed air —*The Lancet*, Jan 23, 1886

TYPE WRITING AS A HELP TO MEDICAL MEN — A correspondent of the *British Medical Journal* calls attention to the value of the type writer as a help to medical men who write "In these days of high-pressure, when every moment is of the greatest value, and must be made use of, any invention that will tend to save those golden moments will be hailed with satisfaction by those who feel that they have so much to accomplish in their short span of life One of these time saving instruments is 'type writing,' and it has been recognized as a great boon by all who have made use of it Authors of all kinds require printed proofs of their work before it finally appears as a readable book, and in most instances 'press corrections' form a serious item in the bringing out of a book But it is especially to the medical man who has papers to prepare for reading at meetings, lectures, etc , short articles to send to medical journals, that this method of copying will commend itself He can at once see how his written matter will look in print Papers that are to be read out at a meeting are, we are informed, more easily deciphered when printed in the plain, clear type of the type-writer than even the neatest handwriting"

REVOCATION OF LICENSE FOR UNPROFESSIONAL CONDUCT —In the case of the State *ex rel* Chapman *vs* State Board of Medical Examiners, etc , the Supreme Court of Minnesota have recently held that Sec 9, c 125, Gen Laws 1883, entitled "An Act to regulate the Practice of Medicine in the State of Minnesota," which provides that the "Board of Examiners may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, *and may revoke their certificates for like causes*," is constitutional The revocation of such certificates is not the exercise of judicial power, and hence may constitutionally be vested in the State Board of Medical Examiners

M JULES GUERIN, one of the most distinguished physicians and scientists of France, and the founder and for many years the Editor-in chief of the *Gazette Medicale de Paris*, recently died at the age of 85

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM FEBRUARY 6 1886, TO FEBRUARY 12 1886

Major Henry A Tilton, Surgeon (Ft Wayne, Mich), granted leave of absence for two months, to commence on or about March 1, 1886 S O 8, Div Atlantic, Feb 9, 1886)

Major H E Brown, Surgeon, granted leave of absence for six months, on surgeon's certificate of disability, with permission to leave the department of the Missouri (S O 29, A G O , Feb 4, 1886)

Capt Rob't H White, Asst Surgeon, granted leave of absence for two months, to take effect when his department commander may think proper (S O 29, A G O Feb 4, 1886)

Capt Wm C Shannon, Asst Surgeon, ordered for duty at Ft Warren, Mass , relieving Asst Surgeon John M Banister, who will return to his proper station (Ft Adams, R I) (S O 27, Dept East, Feb 6, 1886)

First Lieut Guy L Edie, Asst Surgeon, ordered for field duty in New Mexico with troop "K," 8th Cav (S O 23 Div Mo , Feb 8, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING FEBRUARY 13 1886

Crawford, M H , P A Surgeon, detached from the "Shenandoah" on the 8th inst Wait orders

Rush, C W , Asst Surgeon, detached from the "New Hampshire" on the 15th inst , and ordered to U S R Str "Franklin"

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI Chicago, February 27, 1886 No 9

ORIGINAL ARTICLES

DIPHTHERIA IN THE CITY OF KALAMAZOO, MICHIGAN, IN 1884

BY H B HEMENWAY, A M, M D,
LATE HEALTH OFFICER OF KALAMAZOO

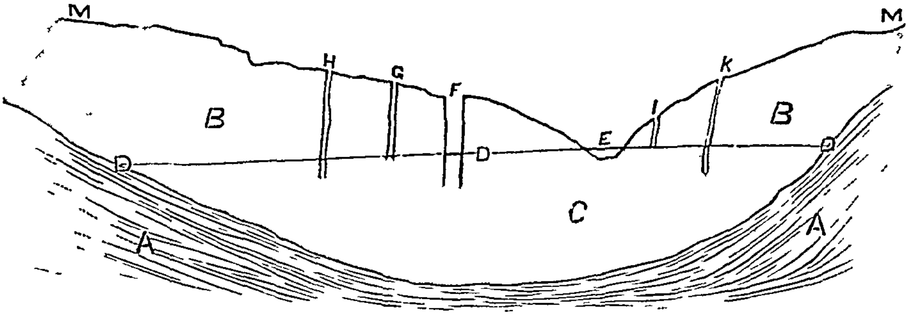
To the physician three fields of work present themselves, in which he may spend his time and strength He may devote himself to the study of the normal and morbid conditions of the human system, simply for the satisfaction received in learning, he may direct his attention to the cure of diseased bodies, or, his thought may be occupied in discovering and making known the cause of sickness

There is, perhaps, no other one disease about which there is so much disagreement among doctors, as diphtheria It is not my intention here to discuss especially the identity or non identity of diphtheria, and membranous croup Neither do I propose to look for those minute forms of life, which one sees so clearly, and another observer says do not exist, save in the mind of the enthusiast Nor shall I ask the reader to investigate with me, at present, whether we should give to the patient brandy or quinine, turpentine or calomel, ice in the throat or hot applications I shall endeavor to give facts as they were, uncolored by any pet theory or idea When an opinion is stated I shall seek to so express it that the reader will at once be able to separate the true from the possibly false

During the latter part of the year 1884, there occurred in the city of Kalamazoo, Michigan, a large number of cases of diphtheria At first they seemed to be to a degree sporadic Though in some localities several persons were ill, yet no connection could be found between the disease in one section and that in another Before proceeding, however, to give a history of the epidemic, perhaps a general view of the city would not be unprofitable

Kalamazoo is a beautiful little city of about 15,000 inhabitants, located in the midst of a rich farming region It nestles in a hollow, with hills nearly surrounding it The river, from which the place took its name, runs into the city from the east, twice turns back upon its course and then runs northward until beyond the limits of the corporation Though hills have been mentioned, there is no marked elevation of the earth's surface The river flows silently, and the wind may easily sweep any street in town Two creeks join the river within the city walls At the "Ox bow" an old settler cut a canal across a narrow neck of land, and located a flour mill, using his canal for a race He needed no pond as the river furnishes all the power needed without any special storage of the water Just south of the city the stream is divided A portion flows on in its natural channel, the remainder is conducted along higher land to run another mill Before it gets to this mill the race expands into a storage pond Along this larger creek, and around the "Ox-bow" of the river, the land is low, and in the springtime it is often covered with water North of the city the valley spreads out to the width of three quarters of a mile The soil of most of this low land is a rich alluvium Mixed with the mould is more or less sand, and an occasional bowlder is to be seen Here, too, are peat beds, which furnish a good grade of that fuel The centre of the city is built upon higher ground, which, like the surrounding hills, is composed largely of sand In some places so much clay is mixed with the sand that the earth is very firm In others, the sand may be found in a pure state Under the whole city, from six to twenty five feet below the surface, there is a bed of clay This is not very thick in any place, though its thickness varies greatly At the paper mill a short distance south of the city, an attempt has been made to get an artesian well The drill went down between 750 and 760 feet below the surface For about 200 feet the workmen bored through all kinds of drift material, mingled sand, gravel, clay, and bowlders At that depth a small stream was struck, but it did not flow with sufficient force to answer the purpose The water had a decided taste and smell of coal oil A little more than 200 feet from the surface shale was reached As far as the drill went below that point nothing but shale was found, and at last the enterprise was abandoned

A study of the geology of this section of the State shows that Kalamazoo is situated nearly in the centre of a large depression in the rock This basin, about seventy five miles in diameter, and nearly round, is filled, as has already been mentioned, with gravel sand, and other drift material Reference to the cut may aid the reader to understand the elements of the water supply of the city This figure is of course schematic, and drawn without reference to proportion, as the ratio of the diameter of the basin to the depth of the same is many times greater than one might infer from the diagram Imagine, then, AA to represent the bed rock, and MM the surface of the ground BCB would then represent the drift material The water level would be practically the same (DDD) for the whole basin, with an outlet (at E) in the Kalamazoo river At the depth of C there would be little to produce motion in the water, it would be without special current More water, therefore, coming into the basin in the form of rain or sewage would, as soon as it reached the water level, tend to flow out towards E Theoretically, therefore, and actual tests show it to be a fact, the water at the water level would not be as pure as that from a greater depth There are three sources or modes of water supply for the citizens Open, or dug wells, drive wells, and the city pumping works This last water is commonly known by the name of the first pumps used at the works—Holly The source of this water pumped by the city engines is a deep well (figure, F), so constructed that the water only enters from the bottom Among the dug wells I included what many call spring water For example, in case 130, to get drinking water a barrel was sunk in the ground by the side of a ditch Strange to say, at the level of the water in the ditch the aqueous fluid was to be found in the barrel To make the work as easy as possible, the point selected for lowering the barrel was where the surface came nearest to the water level The water to be had from wells on the hill in the northwest corner of the city is purely surface water, as it comes from above the clay stratum already mentioned Many of the drive wells do not go down deep enough to gain the advantage of drive wells, as they only give surface water



The present system of sewage was adopted in December, 1880 The first sewers put down were laid the next summer During the summer of 1884 the work of laying the lateral sewers was pushed vigorously, and at the close of the season about twelve miles of pipe had been laid In 1885 the work was again pushed forward The system adopted is essentially that of Col Waring Only a very small percentage of the residences had been connected with the public sewers at the time of the outbreak of diphtheria The Arcadia creek, which flows through the centre of the city, was an open sewer An ordinance was passed during the year forbidding its use as such In the older portion of the city the ground is full of cesspools, many of them long since forgotten

There is a large Dutch population in the city In their native country they were accustomed to live on low land, and here they settle where most people would not think of locating their houses All around on the flats one may see their little huts and cottages Some of these are kept as clean as any house could be, many are less wholesome, and some are decidedly filthy They are decided fatalists When the attention of a mother was called to the filthy water drank, as the cause of her child's diphtheria, she replied, "No water! It comes from Himmel" Their children are put to work almost as soon as they can walk The soil where they live is well fitted for celery raising The shipping season lasts about six months To give a little idea of the amount of that article raised one need only state that it is not an unusual thing to ship forty or more tons of celery in a single day, sending it to the Atlantic and Pacific Oceans and to the Gulf of Mexico The women and children do much of the washing and preparing for shipment They will often stand all day with their hands in cold water at this labor In more than one instance children have been sent out to this work before they were entirely well

Kalamazoo is not a very unhealthy place The estimated number of deaths for the year 1884–85 was about 12⅔ per thousand Omitting the deaths from diphtheria and other so called preventable diseases, the rate would have been 8 per 1000 In 1884, from the 7th day of May to the 21st of June, there was no grave opened in the Protestant portion of the city cemetery, and from May 26th to June 21st there was no interment in the whole cemetery In June, 1885, there were only ten burials in the city

We are now prepared to study the earlier cases of the epidemic, and then study the outbreak as a whole

Case 1 —F, aged 3 years, only child Parents both deaf mutes Family live on the upper floor of a frame house The Arcadia creek, above mentioned, flows through the back yard The creek is higher than the cellar floor The little girl was reported ill with scarlatina about the last of April As health officer I visited the place and confirmed the diagnosis Ordered the father, who was a mechanic employed in a furniture factory, to remain at home I ordered them to keep the child as perfectly isolated as possible The house was in a good condition generally The cellar was damp, and the mother informed me that, a day or two before, the baby played down cellar for some time She attributed her sickness to that She was quite sure the child had not played with other children A few days later, on April 29, the attending physician reported that the scarlatinal symptoms had nearly left, but that he had a clear case of diphtheria just developed that day There had been no known case of diphtheria in the city for several months The family could not conceive of any means by which they might have come in contact with that disease The case progressed favorably and in two weeks was reported recovered, but on May 20 the doctor was sent for in haste, and when he reached the house the child was dead, probably from cardiac paralysis The family used water from a dug well, and there was no sewage for the house A baby under one year old in the same house did not get sick

Cases 2, 3, and 4 —F , F , and M , aged 10, 4½, and 2, living about six blocks from case 1, all came down with diphtheria on July 20 The house inside was in good sanitary condition The sink-pipe emptied upon the surface of the ground near the house, and the filthy water stood there until absorbed by the ground Six feet from where the water struck the earth a drive well entered the ground A microscopical examination of the water from this well showed large quantities of organic matter A former occupant of the house "could not live in Kalamazoo on account of her health" On July 25 the mother of these children was taken with diphtheria. The use of the well water was stopped, and all except case 3, which died of septicæmia, recovered I could not trace these cases to a previous case

Cases 6 and 7 lived just around the corner from the preceding, and had played with them before they were taken sick They were taken sick on July 26 and 30 respectively Case 6, F , aged 8 years, lived in an old house, which sat down on the ground, without cellar wall, and which showed marked signs of decay Both these families used dug wells, and neither place had sewage

Case 8 —Colored, M , aged 12 years, was taken sick August 1st Lived in an old house without sewage Used dug well Could not trace this to any preceding case

Case 9 —M , 15 years old, lived in the south-eastern portion of the city (The others were all north of Main street) Could not trace the case to preceding cases House near marsh land, and no ventilation under the rooms where he lived Taken sick August 5 Died August 24 of cardiac paralysis

Case 10 —M , aged 3, taken sick August 16th, and *Case 11* —F , aged 7, taken sick August 17th, lived in the north eastern portion of the city in an old house without other foundation than the earth A hole in the ground was called a cellar, and there the winter's wood was kept, and the bark and sawdust accumulated Could not trace to other cases

Cases 12 to 17, inclusive, were colored children, in two houses, and though I could not trace them to case 8, yet they may have taken the disease from him The sanitary condition of their homes was very poor Three of these cases died

Case 18 —M , 12 years old, was taken sick September 28 He had always been sickly The family lived on the third floor of a tobacco store Used Holly water and city sewage Traps imperfect, alley in the rear not in good condition Died suddenly from rupture of an abscess in the pharynx Could not trace to previous case

Case 19 —Could not be traced to previous cases Used water from dug well Sewage of place nil House old and decaying

Case 20 —Mild case Lived in second story of a store building Private drain, Holly water, private alley in rear in very bad condition just before the boy was taken sick, slops were thrown out into that alley by neighbors and allowed to stand upon the ground until dried up

Of the next two cases I simply recorded "bad surroundings" Though I could find no communication with case 19, yet they may have taken the disease from him More likely they might have all three taken the disease from case 25, though I think they did not do so

Cases 23 to 25, inclusive, and 35, ages 5, 2½, 9, and 7, sex, F , F , M , M , taken sick September 18, 18, 15, and 22 The house was a small frame structure of one story The cellar walls were made of two layers of boards, between which sawdust was packed In the spring the cellar floor was covered with water No attempt had been made to ventilate the place The sawdust was moldy and mushy In the cellar were the remains of vegetables not less than a year old The boards around the door-way were quite rotten There was no provision for the care of slops, but the tidy housewife stepped upon the back porch and threw her dishwater, etc , upon the surface of the ground The dug well had partially caved in, on account of the giving away of its wooden walls, and consequently the surface of the ground sloped towards the well The water from the well was used for cooking and drinking All the children in this house were sick The boys, who were away from home more or less, were but slightly affected The girls, who had been in the house much, were very sick, and the older one died Next door to this family lived another, whose sink-pipe opened upon the surface of the ground among a lot of weeds From the street both of these places looked very neat and clean I examined the weeds and found that the ground was a soft slime several inches deep There was a window over these weeds about five feet from the ground By this window a child slept She had diphtheria. The family used a dug well under the house

Not to be burdensome I will only make a few more selections

In *Case 40* the drinking water used was very bad

Cases 55, 56, 58, 59, 60, F , M , F , F , F,, aged 3 years, 15 months, 12, 14 and 15 years First three fatal Taken sick October 6, 8, 6, 1, and 2, respectively The three older children were sent out peddling vegetables after they were taken sick No physician was called until the night before the first child died Upon examination I found a dug well close by the back door The kitchen had no floor but the ground On two sides of this kitchen was a ditch, eight inches deep, which served to receive and hold the family slops It did not conduct them away

When I reached the house this ditch was full of black water The well was not six feet from this ditch, and yet the mother wondered that the health officer would not allow her a couple of weeks before having that ditch filled up

In another house upon the marsh, with ditches around, and those ditches dammed to help the celery, there were four children, the oldest 11 years old, and the youngest 18 months All died except the baby The baby was not sick In this case a dug well was used, and I found the women standing upon the well platform pouring their slops off from its edge

In *Case 163* a young lady fell into the fire and was very seriously burned One of the attending surgeons was at that time attending a case of diphtheria The general sanitary condition of the house was good

In one house, old and without sewage, dug well, and no cellar or chance to ventilate under the house, there were eleven cases and seven deaths

Case 215—A beautiful little cottage was built on ground that had been used for a long time as a dairyman's cow yard A well was dug not more than fifteen feet from the privy Soon after the family moved into the cottage the little girl was taken sick

In a few cases I could find nothing about the premises in a bad sanitary condition That, however, was no proof that the disease might not have arisen from filth The physician reporting case 69 recorded as the source of contagion "unknown" The patient was a butcher, 36 years old His children were playing with him and even kissing him after the disease was clearly defined, and yet he was the only member of the family attacked The neighbors had complained of his barn yard, but the health officer did not think it probable that Mr F had taken the disease there Examination of the meat market showed that right under where Mr F stood at his work, there was a water closet in the cellar The sewer pipe was broken and leaked both water and gas In another instance (from my own practice) a family lived in a new brick block of four houses Everything seemed to be in good condition until I asked the owner about the sewer traps I then found the following condition There was a large and good cesspool of brick behind the house, and only twenty feet from the building There was an opening at the surface of the ground for ventilation and cleaning Four lead pipes connected this cesspool with the four kitchen sinks There were *no traps*, but the pipes were as straight as possible The pipe to No 3 was the shortest and straightest Since the upper end of the pipe was several feet higher than the out-of doors ventilator of the cesspool, very naturally in kitchen No 3 there was frequently to be detected an odor of sewer gas In this house, all three children had diphtheria without being exposed to any previous case so far as known Traps were at once put into each sink pipe No other children in the block had the disease

In most families where the first cases were promptly isolated other persons were not attacked

Table I gives a synopsis of the water supply and sewage of the first 292 cases I may here express a regret that I did not keep a fuller account of all the cases Whoever has attempted, however, to keep statistics of this kind readily realizes how difficult it is to get accurate information, and how often the statistician receives an intimation that the information sought is none of his business

TABLE I

WATER SUPPLY AND SEWAGE

	TOTAL		FATAL		Percent of Cases Fatal
	Number	Per cent.	Number	Per cent	
WATER—					
Holly	53	18	13	21	24 53
Drive Well	101	35	10	16	9 90
Dug Well	137	47	39	63	28 47
Cistern	1				
SEWAGE—					
Cesspools	33	11	5	8	15 15
City Sewers	6	2	2	3	33 33
No Sewage	253	87	55	89	21 74
TOTAL	292	100	62	100	21 23

About twenty five per cent of the entire population of the city use the Holly water Since only eighteen per cent of the diphtheria patients used that water, it seems to indicate that they are less likely to take the disease on that account Probably there are other reasons besides the kind of water drank why these citizens should be less prone to the disease A very large proportion of the cases occurred among the poor population, especially among the Dutch

In regard to the portion relating to sewage, it must be noticed that the places where no provision had been made for the care of kitchen slops are decidedly the most prolific of cases, and fatal cases The very small number of cases in which the premises are connected with the city sewers renders the last column of that line of little value One of the two fatal cases was No 163, already mentioned, in which the injuries received nearly took the patient's life, before the diphtheria attacked her As relating to the subject of sewage, it may be noticed that no cases occurred upon the east side of the river until the dams on the river were fixed, and the water raised enough to overflow some low land there After that there were nineteen cases, six of which were fatal

After a careful study of the epidemic, I came to the following conclusions

1 Diphtheria is essentially a filth disease

2 It may be produced without any relation to a former case

3 During the earlier stages it is but feebly contagious

4 A simple "sore throat," including under this head tonsillitis, pharyngitis and laryngitis, may develop into diphtheria, without receiving contagion from a previous case

5 Diphtheria, after being once produced, may become contagious and epidemic

6 Diphtheria and the proneness to the disease may be modified by the constitution of the person, and by atmospheric conditions

7 Diphtheria and membranous croup are the same disease

To what extent does one attack protect from future attacks? I regret to say that I have no accurate data on this subject Some persons were attacked a second time On the other hand, in one family of four children all but one had the disease some years ago This year this one had it and died Those who had had it before escaped this year

What relation has age and sex to the disease? Table II gives the number of cases of males and females of each age from April 15, 1884, to July 1, 1885 For study the cases are divided into four groups Those under 6 years old, those from 6 to 10 inclusive, those from 11 to 15 inclusive, and those over 15 It will be noticed that almost ninety two per cent of the males, eighty five per cent of the females, and eighty eight per cent of all cases were under 16 years old

TABLE II

NUMBER OF CASES

	MALES			FEMALES			TOTAL		
A	*N*	*M*	*P*	*N*	*M*	*P*	*N*	*M*	*P*
1	8			5			13		
2	4			12			16		
3	9			15			24		
4	11			15			26		
5	13	45	30 41	12	59	32 24	25	104	31 42
6	14			10			24		
7	17			17			34		
8	11			10			21		
9	16			10			26		
10	11	69	46 62	12	59	32 24	23	128	38 67
11	8			9			17		
12	5			10			15		
13	2			5			7		
14	3			6			9		
15	4	22	14 86	8	38	20 77	12	60	18 13
16	3			2			5		
17	1			2			3		
18				2			2		
20				1			1		
21				1			1		
22				1			1		
23				1			1		
24				1			1		
25				1			1		
27	1						1		
29				2			2		
32				1			1		
33	2			3			5		
35	1			2			3		
36	1						1		
37				1			1		
39	1			2			3		
45				2			2		
47	1						1		
49	1						1		
50				1			1		
51		12	8 11	1	27	14 75	1	39	11 78
Total	148	148	100	183	183	100	331	331	100

Average Age—Males 9 03 Females 10 67 Total 9 94

A Age *N* Number *M* Total Number *P* Percent of Cases

Table III shows that ninety three per cent of the males, ninety five per cent of the females, ninety-four per cent of all cases proving fatal were under 16 years of age Of the cases over 23 years old, all but four occurred in families where there had been previous cases among the children Among the four is the butcher mentioned as Case 69 One was an old colored woman who had not had any child sick with it so far as known, but she lived in the neighborhood of cases among the negroes Of the fatal cases over 15 years old, the boy of 16 was an unusually well developed lad The girl of 17 was also well developed So far as could be seen there was no special reason why they should either of them die The girl of 18 was the one already twice referred to as having been severely burned The man 33 years old had pneumonia His four children had diphtheria, and three of them died After the last death he caught cold, and at the same time diphtheria took hold of him, almost immediately extending through his entire lungs It will also be noticed that more girls than boys were attacked during the first period In the next the boys are most numerous During the years when the maidens are preparing for womanhood they are again more likely to be troubled by the disease

In the first year of life there were 13 cases—8 males and 5 females, at 2 years there were 16 cases—4 males and 12 females, at 3 years there were 24 cases—9 males and 15 females, at 4 years 26 cases—11 males and 15 females, at 5 years 25 cases—13 males and 12 females, at 6 years 24 cases—14 males and 10 females, at 7 years 34 cases, equally divided, at 8 there were 21 cases—11 males and 10 females, at 9 there were 26 cases—16 males and 10 females, 23 cases in the 10th year included 11 males and 12 females, 17 cases at 11 were divided among 8 males and 9 females, 15 cases at 12 included 5 males and 10 females 7 cases at 13 included 2 males and 5 females, 9 cases at 14 showed 3 males and 6 females; 12 cases at 15 give 4 males and 8 females, 5 at 16 give 3 males and 2 females, 3 at 17 show 1 male and 2 females, and at 18 there were 2 cases, both females

The age at which death took place in the fatal cases was as follows At 1 year 3 males and 1 female, at 2, 6 females, at 3 years 4 males and 4 females, 4 males and 7 females at 4 years, 2 males and 4 females at 5, 4 males and 1 female at 6, 1 male and 3 females at 7, 2 males and 4 females at 8 1 each at 9, 2 females at 10, 1 each at 11, 1 male and 2 females at 12, 2 females at 13, one each at 14, 1 male and 2 females at 15, 1 male at 16, 1 female at 17, and 1 female at 18

TABLE III

FATAL CASES

	MALES				FEMALES				TOTAL			
A	*N*	*M*	*P*	*T*	*N*	*M*	*P*	*T*	*N*	*M*	*P*	*T*
1	3				1				4			
2					6				6			
3	4				4				8			
4	4				7				11			
5	2	13	48 15	28 89	4	22	51 17	27 29	6	35	50	33 63
6	4				1				5			
7	1				3				4			
8	2				4				6			
9	1				1				2			
10		8	29 63	11 59	2	11	25 58	18 64	2	19	27 14	14 84
11	1				1				2			
12	1				2				3			
13					2				2			
14	1				1				2			
15	1	4	14 81	18 18	2	8	18 60	21 05	3	12	17 14	20 00
16	1								1			
17					1				1			
18					1				1			
33	1	2	7 41	16 67		2	4 65	7 41	1	4	5 72	10 26
Total	27	27	38 57	18 24	43	43	61 43	23 49	70	70	100	21 15

A Age *N* Number *M* Total Number *P* Percent of Fatal Cases
T Percent of all Cases

It will be noticed that 7 seems to be the favorite age for patients It will also be noticed that boys reached their highest mortality for any age at the years 3, 4 and 6, losing four at each of those ages The girls lost seven at the age of 4 Table III shows that the mortality of females was greater than that of males What is the influence of weather upon diphtheria? Table IV gives the weather report, and number of new cases of diphtheria each week for the last six months of 1884 I often noticed that when the amount of ozone dropped to one or two for two or three days, new cases would be reported, and old ones were likely to be worse At Christmas time there was considerable snow upon the ground, and there were but two or three cases of diphtheria The snow melted quite suddenly during the next few days, and within two weeks there were twenty-five new cases reported When the ground had been frozen a short time the number of cases was small

TABLE IV

Week ending	New Cases	Bar	Ther	Wind	Cloud	Ozone	Rain
July (fraction) 5		29 091	70 25	3 85	5 08	2 00	0 22
12		29 175	68 14	5 00	6 05	2 14	0 16
19		29 199	64 65	5 04	4 06	1 57	0 07
26	5	29 215	72 78	5 06	6 00	2 05	1 78
August 2	2	29 117	72 43	5 00	7 00	2 00	0 26
9	1	29 257	60 57	5 00	7 06	2 06	0 33
16	1	29 366	72 53	4 00	4 00	1 06	0 12
23	1	29 278	72 11	6 00	4 00	2 00	0 52
30	3	29 108	64 89	5 04	7 06	2 06	0 76
September 6	3	29 292	72 78	4 06	5 00	1 05	
13	1	29 376	70 22	5 03	4 02	1 08	0 48
20	9	29 365	63 43	6 08	4 03	1 07	0 18
27	9	29 216	64 00	6 03	7 00	2 05	1 54
October 4	15	29 266	68 24	5 01	8 00	2 02	0 24
11	27	29 381	59 76	6 02	5 00	2 00	0 96
18	46	29 399	55 57	5 03	5 00	2 04	0 18
25	24	29 497	49 09	6 04	5 00	2 03	0 98
November 1	23	29 361	42 57	5 00	9 05	2 01	0 82
8	27	29 439	38 48	5 02	6 00	2 07	0 85
15	27	29 389	45 24	4 07	5 03	1 07	
22	20	29 316	36 76	5 09	7 00	3 00	0 12
29	15	29 063	27 62	6 06	10 00	3 00	0 87
December 6	5	29 153	40 86	4 07	7 00	3 06	0 83
13	4	29 335	31 33	7 01	9 00	1 09	1 02
20	2	29 306	13 81	5 02	9 04	2 07	1 98
27	1	29 379	15 33	5 05	9 03	3 04	1 34
(fraction) 31	12	29 255	39 75	6 00	10 00	3 02	2 05

Table giving for each week the number of new cases of diphtheria in the city the average barometric pressure thermometer (F) velocity of wind amount of cloud ozone and rainfall (Cloud and ozone marked on scale of 10)

Of the fatal cases, the modes or causes of death were as follows

Cardiac paralysis	8 cases
Laryngeal stenosis	29 "
Septicæmia	27 "
Laryngeal stenosis and septicæmia	4 "
Rupture of abscess	1 case
Hæmorrhage (from bowels)	1 "
Total	70 cases

So far as known, of the cases reported one had the membrane only in the larynx Three or four females had the membranes over the genitals Several had the membrane upon abrasions of the skin I think that, without exception, cases in which blisters had been raised progressed towards recovery more slowly, and were more liable to septicæmia than those not so treated In several cases the parents had applied kerosene oil to the neck externally, before the physician was called At first, knowing that some good authorities had recommended that vesicants be used, I permitted my patients to be so treated, though I did not recommend it but I became thoroughly convinced that the practice did much harm

Though, as before stated, I do not propose to discuss the subject of therapeutics, yet it may not be out of place here to say that I think, with only one exception, all the physicians here use some preparation of mercury in the treatment of this disease Some prefer as a general thing the iodides, others the chlorides Especially in robust children, my own preference is for the mild chloride, given in 2-grain doses, every two or three hours until six powders have been taken for a child 5 years old The one physician above mentioned depends largely upon whisky and quinine His success certainly is not better than the average Within the last year various papers have recommended the burning of tar and turpentine I think those who have tried it here will not try it again For laryngeal trouble, however, some have thought they were aided by the vapor of turpentine I used it in one case with good results The turpentine was put into boiling water, and the patient inhaled the steam Noticing the tendency towards cardiac paralysis, from the first I gave all my cases digitalis, and after the fever began to subside I administered tr nucis vomicæ Locally I used a solution of carbolic acid or permanganate of potassium Though I did not try it, I think the mixture of solutions of corrosive sublimate and permanganate of potash would do good, better, indeed, than any other application I have seen suggested Personally I am convinced that ice applications are detrimental, but I allow the patients to drink water freely Alcohol is good, but it must be used with caution I am convinced that we must study to prescribe such medicines as will not disgust the patients, as not infrequently serious results have followed the resistance of the patient against taking the drug prescribed

The patient's strength must be kept up, not by stimulants, but by food When all else fails I depend on milk, given, if necessary, in dram doses every half hour Since most of the cases occurred among the poor and more ignorant population, where they did not receive, and could not get competent nursing, it was the opinion of the attending physicians that if we had had a city hospital where such patients could be cared for, from forty to fifty per cent of the fatal cases would have been saved, and the whole number of cases would have been diminished

In what proportion of the cases did paralytic symptoms develop? I could not tell exactly, as physicians made no report of paralysis except incidentally I knew, however, of a dozen cases out of the 331 There probably were more One of these was almost entirely paralyzed, and afterwards recovered In two cases at least, the paralysis developed certainly a month after apparent recovery took place One of these proved fatal

I am under obligations to Mr A M Munn, of the Michigan Asylum for the Insane, for kindly giving me free access to his weather record The observations were made by Mr Munn at the Asylum, which is situated upon the hill in the southwest portion of the city

Kalamazoo, January 10, 1886

BRAIN TUMORS[1]

BY PHILIP ZENNER, M D ,

LECTURER ON NERVOUS DISEASES IN THE MEDICAL COLLEGE OF OHIO
CINCINNATI

Our present knowledge of cerebral localization lends additional interest to the study of all cerebral lesions This statement is least applicable to neoplasms They have less value than other kinds of lesions in forwarding our knowledge of localization This is the more to be regretted, as it seems probable that brain tumors will soon be relegated, in part at least, to the domain of surgery

Large and even multiple tumors may be almost latent, while small growths may produce marked symptoms In one instance a tumor may produce symptoms, and in another not, when in precisely the same part, and the symptoms may be altogether deceptive The factors which determine the symptoms produced by a tumor are

Its location
Its size
Its character, density, vascularity, etc
The rapidity and manner of its growth
The extent of destruction or softening of nervous substance

These bear a certain relation to the kind of tumor Cysticerci are of a soft consistence, and never destroy the brain substance Carcinoma, tubercles and some others usually destroy neighboring nerve tissue Too many elements, however, come in play to enable us to diagnosticate the kind of tumor from the cerebral symptoms alone Brain tumors cause pressure by general increased pressure, and by their direct influence on the nervous tissue They may destroy brain tissue, produce softening of the parts around, or cause symptoms by direct compression In order to produce the local compression the tumor must be harder than the brain substance The compressing effects also depend on the locality of the tumor If it be on the convexity, the brain may accommodate itself to the growth without sustaining any local injury while at the base, where each part is to a certain extent fixed by the cranial nerves and blood-vessels direct local compression is easily produced Each nerve found at the base is represented by a comparatively large area of the cortex at the convexity, so that a considerable lesion in the latter locality is requisite to produce the symptoms made by a small one in the former Furthermore, it appears that when a part of the cortex has been destroyed another part will sometimes perform its functions The tissues next to the bone or rigid membrane are, *cæteris paribus*, compressed to a greater extent than the central part of the cerebral lobe, which is everywhere surrounded by soft brain substance Paralysis of the olfactory nerves is often produced by compression of the nerves between the brain and frontal bone, so that loss of smell occurs with brain tumors quite independent of their locality The third, sixth, and other cranial nerves have also been affected in the same manner

The heightened intra cranial pressure may also paralyze the nerves by causing them to be constricted where they pass through the tightly stretched dura mater, or to be compressed by distended blood-vessels It may even produce hemiplegia or other focal symptoms quite regardless of the seat of the tumor Such occurrences occasion great confusion, and hence it is well for us to remember this rule That local or localizing symptoms are the less valuable for the purpose of making a local diagnosis the more marked are the symptoms of heightened intra cranial pressure

The most prominent symptoms of heightened intracranial pressure are headache, convulsions, double optic neuritis, vertigo, vomiting, changes in the pulse and in the mental condition But even these symptoms have a certain local significance The headache points to the direct or indirect involvement of the dura mater, the convulsions to the motor areas of the brain, the mental symptoms to the cortex, the vertigo to the cerebellum, vomiting and alterations in the pulse to the medulla Each of these parts may become affected when there is increase of the general pressure Headache occurs most frequently when the sensitive dura mater is most easily affected, convulsions when the motor area is most readily irritated

These symptoms occur most easily when rapid changes occur in the tumor, for instance, rapid growth or transient fluctuations

Headache is the most common and usually the earliest symptom The pain is frequently of the greatest intensity, often driving the subject wild It is then most likely to occur in paroxysms, though it not uncommon to find even the milder headache cease altogether for a longer or shorter period of time If the pain be quite circumscribed, and constantly in one place, it is likely to point to the seat of the tumor. Usually the pain is not circumscribed, and, except neuralgia of the fifth, is of no value in locating the tumor It is a singular fact that the headache often diminishes or disappears when paralytic or other focal symptoms occur The growth of the tumor is probably very slow in those cases in which no headache occurs

Convulsions are a less common symptom than headache, but occur in nearly half the cases They have a greater local significance than the headaches

Double optic neuritis is also a common general symptom, and of all is the most nearly pathognomonic. It probably occurs in the majority of cases, but is sometimes a transient condition

Vomiting due to brain tumor is usually distinguished from that due to the stomach by its occurrence equally, whether that viscus be full or empty, and by the slight subjective symptoms accompanying it

Mental symptoms, apathy, loss of memory, somnolence, etc , usually occur at a late period though they are rarely absent

Intercurrent apoplectic attacks are usually due to hæmorrhage in or about the tumor

The chief localizing symptoms of brain tumors are paralysis of the cranial nerves

Tumors of the brain must be diagnosticated from abscess and meningitis, but usually other concomitant conditions will lead to a correct diagnosis

---

[1] Read before the Cincinnati Academy of Medicine on Feb 1, 1886

In the medical treatment, apart from opium as a narcotic, iodide of potassium is by far the most valuable drug It has been said to effect cures in tumors which were not syphilitic But it seems probable that in the near future operative interference will be often resorted to in these cases, and it is worthy to consider farther this aspect of treatment As an operation for the removal of a tumor is chiefly thought of in reference to those on the convexity, I may here consider what symptoms might assist us to a proper diagnosis of these tumors Among these may be mentioned headache, monoplegia, aphasia and hemiopia These symptoms under very favorable circumstances may lead us to correct local diagnosis of tumors at the convexity But we must never forget the rule that the value of localizing symptoms is in inverse proportion to the indications of heightened intra-cranial pressure Wernicke has suggested tapping the ventricles for the purpose of reducing the intra cranial pressure

A symptom very common and frequent is blindness from atrophy of the optic nerves, caused by pressure of the accumulations of the third ventricle which is again usually due to a tumor in the posterior fossa of the skull, most frequently tumor of the cerebellum Therefore, blindness setting in rapidly and at an early period is a symptom of much localizing value, and not only is it of diagnostic significance but provided tapping of the distended ventricles should prove serviceable, it would be a valuable guide in treatment It would indicate to us cases which could at least palliate the symptoms which it would be a great triumph to relieve Those symptoms are most prominently blindness, often deafness, some headache and other general symptoms of increased intra cranial pressure

---

A CASE OF SARCOMA OF THE LOWER JAW, SUCCESSFUL REMOVAL[1]

BY OSCAR J COSKERY, M D,

PROFESSOR OF SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS BALTIMORE, MD

Peter King, colored, aged 15, born in Maryland, was admitted into the City Hospital, Baltimore, on March 31, 1882 His family history was good His personal history was as follows Between two and three years ago his mother had first called his attention to a generally enlarged condition of the left side of his lower jaw, and a consequent swelling of that part of the face This became more and more apparent, the growth was recognized by his medical attendant to be confined to the inferior maxilla, and as it spread in every direction, the teeth had been displaced and the tongue pushed well over to the right About two months before he came under my observation an enlarged gland had made its appearance in the left submaxillary triangle, which frightened the patient, and decided him to have all removed if possible

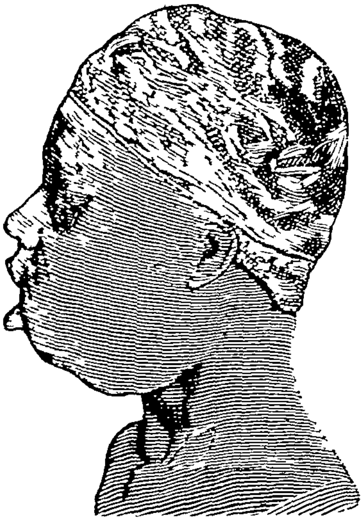


FIG 1 —Cast of face and head before operation

On April 15, 1882, the patient being fully under chloroform, an incision was commenced in the median line of the lower lip, cutting through the soft tissues to below the chin From this point the cut was continued over the most prominent portion of the tumor, first outwardly as far as the angle of the jaw, and then upwards to its point of articulation with the temporal bone The flap being dissected off, was turned up, and the growth exposed In this step of the operation the facial artery was cut, and required ligation The right median incisor was now drawn, and the metacarpal saw applied to the jaw just to the right of the symphysis menti As soon as the bone was sawn through it was seized in the left hand, and its soft connections with the floor of the mouth quickly severed Then, without attempting the more dangerous task of disarticulating the head of the bone with the knife, strong traction was made upon it, and the neck gave way The bone forceps were applied and the head of the bone, together with the remainder of the neck, were wrenched from position

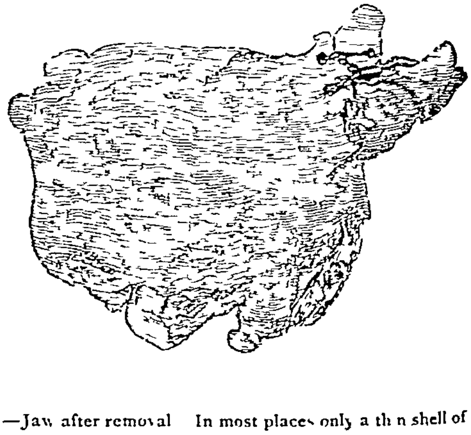


FIG. 2 —Jaw after removal In most places only a thin shell of bone

---

[1] Read in the Section of Dental and Oral Surgery at the Thirty-Sixth Annual Meeting of the American Medical Association

Up to this time the hæmorrhage had not been very great Upon cutting down upon the enlarged gland and enucleating it (which was done with ease), very profuse venous bleeding came on, and it was found that a large branch of the external jugular had been cut The vessel required ligation at both ends The skin flap was then brought into position, room near the angle of the jaw being left for drainage, and dry lint was applied upon the wound, a bandage over all

The boy did well from the first To keep down the fetor of the discharge "Listerine" was used throughout as a mouth wash The cut united kindly, and the patient left the hospital on May 6, 1882, or exactly twenty one days after operation, with only one suppurating point (that left for drainage), and with very little deformity

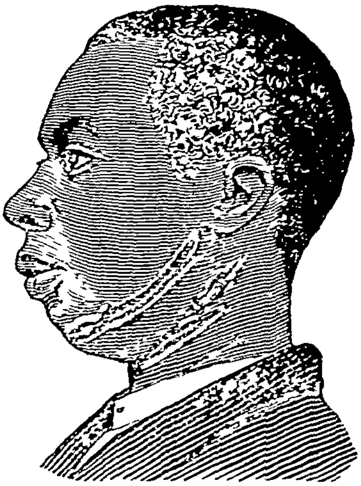


FIG 3—Half view of boy three years and a quarter after operation

Results of microscopic investigation (made and reported upon by Dr Aug Hoen of Waverly, Baltimore Co, Md) "Microscopically this tumor is made up mostly of a dense white fibrous stroma, staining badly with carmine, in some places this stroma presents dilatations of its fibres, which dilatations are filled with elements of the spindle variety only, in some of the dilatations they are very closely, in others loosely packed The cells all contain a single oval nucleus, surrounded by a moderate amount of protoplasm The fate of the cells seems to be their gradual transformation into the fibrous stroma above mentioned, constituting a true fibroid sarcoma, or recurrent fibroid of Paget Points of degeneration could not be discovered in any portion of the tumor, the tendency of the cellular seeming to be the production of fully formed and mature tissue"

P S—Since the above was written, I have been able to get photographs of the boy From the time he left the hospital he has been making a living as a farm hand The side view shows the fibroid thickening (cheloid?) so often noticed in the scars of colored people As will be observed, his general nutrition seems to be good

MEDICAL PROGRESS

THE PHYSIO-PATHOLOGY OF FEVER—MARAGLIANO has studied during the last three years the behavior of the vessels of the skin in beginning and in receding fever, with the hydroplethysmograph of Mosso, often eight to ten hours without interruption A first series of observations was made on patients who, in the course of the experiments, were spontaneously attacked by fever The main results of these observations were the following

1 A febrile temperature was found to be preceded by a progressive contraction of the vessels of the skin

2 During the height of contraction—when the vessels attain their minimum lumen—we find the climax of the febrile temperature

3 As long as the temperature remains at its highest level the contraction of the vessels persists

A second series of experiments was instituted on patients in whom the fever set in after a previous reduction of the temperature to normal by antipyrin, kairine, and thalline In these experiments Maragliano observed the same phenomena as stated above

In a third series of experiments patients were used in whom the febrile temperature fell to normal during the experiment without the exhibition of antipyretics The following results were here obtained 1 The fever attack is preceded by a progressive dilatation of the vessels of the skin 2 This dilatation increases simultaneously with the sinking of the temperature, and reaches its maximum when apyrexia appears

These investigations prove the old theory of fever as advanced by Traube Basing on the results of his calimetric examinations, Maragliano feels certain that in fever we have to deal with a retention of heat, with concomitant ischæmia of the vessels, and in defervescence, with an increased thermal discharge, with a concomitant vascular dilatation Still our author does not by any means believe that the retention of heat is the sole cause for the fever On the contrary, he is positive that still another factor viz, increase of heat-formation, plays an important rôle in the causation agencies of fever The increased production of urea and of carbonic acid gas furnish a satisfactory proof for the existence of this increased heat-formation As to the true significance of this intensified combustion process, we require a good deal more of detailed knowledge Possibly it is caused simply by an overheating, as it were, following upon the retention of heat

Naunyn, Lehmann, and others have recently shown that if animals are subjected to an artificially effected rise of temperature, they give off more urea and carbonic acid Maragliano has observed the same phenomenon in men if they are subjected to a heightened temperature, such as in consequence of warm baths

At any rate, there is no doubt that an increase in the heat-production takes place, no matter what causes the latter might have Therefore we can conclude that the rise of temperature in fever is caused by both a heat retention and an increased heat-production

This does, not of course, exclude the presence of other still unknown factors

The experiments and observations made in this connection on various antipyretic drugs are equally interesting

The first series of experiments were made with kairine, antipyrin, thalline, the salts of quinine, and salicylate of sodium, on individuals who were perfectly afebrile and healthy The results obtained with Mosso's hydroplethysmograph and Winternitz's calorimeter were as follows

1 All employed antipyretics cause in apyretic individuals a considerable vascular dilatation

2 They cause also an increased discharge of animal heat

3 They produce a fall in the excreted carbonic acid gas

A second series with these drugs was made on fever patients, and gave the following results

1 *The antipyretic effects of these drugs are caused* by a vascular dilatation When their influence is exhausted, vascular contraction and subsequent rise of temperature ensue

2 During the period of their activity increased discharge of heat invariably takes place After their exhaustion the heat discharge decreases, and the temperature rises again

3 The influence to antipyretic drugs is intimately connected with a reduction of the oxidizing processes within the economy

As a general conclusion to Maragliano's valuable researches, we can advance the theory that antipyretic remedies act by being able to eliminate the two most important pathogenetic causes of fever In other words, they prevent vascular contraction, and the thus resulting storing up of animal heat, and increase the heat discharge, besides, they combat successfully the increase of heat formation by reducing the intensity of the oxidizing processes of the economy

This double action of the antipyretic drugs is probably caused by an influence exerted on the innervation of the vascular system and the so called trophic nerves Possibly their action affects directly the medullary centres, which, according to the latest researches of Fano, exert a great influence on the nutrition of tissues —*Therapeutic Gazette*, Jan 15, 1886

TREATMENT OF PELVIC ABSCESS IN WOMEN —At the close of a paper on this subject DR PAUL F MUNDE draws the following conclusions

1 Pelvic abscess in the female is not very common, in proportion to the great frequency of pelvic exudations, and probably does not occur in more than ten per cent of all cases, the majority of exudations terminating in spontaneous absorption

2 Pelvic abscess may be either extra peritoneal, the result of cellulitis (by far the most common variety), or intra-peritoneal, the consequence of pelvic peritonitis If intra-peritoneal, the adhesive inflammation between pelvic viscera and intestines may so seal the abscess-cavity as to render it *practically extra* peritoneal

Abscess of the ovary and pyo salpinx do not belong in the catagory of "pelvic abscess" proper, and do not fall under the same therapeutic rules, unless when, by agglutination to the abdominal wall or to Douglas' pouch, they become virtually extra peritoneal

3 Small deep seated pelvic abscess, not exceeding a capacity of two ounces and minute multiple abscesses in the cellular tissue, can often be permanently cured by evacuating the pus thoroughly with the aspirator The surrounding exudation is then rapidly absorbed

4 About one half of the abscesses open spontaneously into the vagina, rectum, bladder, or through the abdominal wall and ischiatic fossa These cases may gradually recover without treatment, or the sinuses may persist until closed by surgical interference

5 Abscesses containing more than two ounces of pus should be opened by free incision along an exploring needle or grooved director, cleared of débris by finger or blunt curette, and drained and irrigated, if necessary, through a drainage tube

6 This incision should be made at the spot where the pus points most distinctly, which is usually the vaginal vault

7 In a certain number of cases the pus points through the abdominal wall, generally in the iliac fossa, and the incision should then be ample, and free drainage should be secured

8 When the pus has burrowed deep into the pelvic cavity, and a probe can be passed from the abdominal incision down to the vaginal roof, mere abdomino cutaneous drainage will not suffice, and a counter opening must be made in the vagina, and a drainage tube carried through from the abdominal wound into the vagina This drainage tube may have to be worn for months In making this incision, care should be taken not to wound the bladder

9 The opening of a pelvic abscess which points through the abdominal wall does not differ from, and is no more dangerous than, the same operation elsewhere on the cutaneous surface of the body It is not an "abdominal section" or a "laparotomy," in the sense that these terms are now used to indicate the surgical opening of the peritoneal cavity

10 Chronic pelvic abscesses, which have burst spontaneously, and have discharged through the vagina, rectum, or elsewhere for months or years, are exceedingly difficult to cure This is particularly the case when the opening is high up in the rectum A counter-opening in the vagina, or enlarging the opening if there situated, the curette, stimulant irrigation, etc , may occasionally succeed, but usually fail

11 A perityphlitic abscess may point through the abdominal wall, and simulate a pelvic abscess proper Aspiration will settle the diagnosis, the treatment is the same

12 The majority of cases of pelvic abscess recover, at least the mortality is small —*American Journal of Obstetrics*, February, 1886

THE USE OF UTERINE DILATOR IN THE TREATMENT OF DYSMENORRHEA, AND AS AN AID IN INTRA-UTERINE THERAPEUSIS —At the meeting of the Alumni Association of the Woman's Hospital of New York, on January 20, DR W GILL WYLIE read a paper on this subject The reader demonstrated his modified Sims' dilator, cervical protector, and hard-rubber cervical drain tubes, instruments which he was in the habit of using in dysmenorrhea, and for intrauterine medication He thought that dysmenorrhea was ordinarily dependent on a hyperesthetic state of the cervical and uterine mucous membrane, and the aim of the treatment was to allay this He urged the necessity of getting rid of all periuterine tenderness, and securing a movable uterus by means of glycerin tampons and hot water injections before resorting to treatment In simple cases of dysmenorrhea, gentle dilatation, repeated once a week for a while, accompanied by tonics, ordinarily sufficed Where there existed a spasmodic element, however, and where there existed sterility, he was in the habit of incising the cervix posteriorly down to the vagina, and then divulsing under an anæsthetic It was after this process that he placed his drain tubes in the canal, above the internal os, using them instead of a stem The tubes, being of hard rubber, could be heated and given the desired curve Thorough antisepsis should characterize every step of this operation He prefers this method to Goodell's rapid dilatation, because by this the cervical tissues are apt to be torn He has also found dilatation of value after the menopause, where on passing the sound, he determines a similar hyperesthesia at about the internal os

Dr W E Moseley, of Baltimore, did not believe that the aim of slight dilatation was accomplished as well by Wylie's dilator as by graduated conical sounds He had also noticed the utility of dilatation after the menopause, in cases where there existed slight dis charge, and nervousness, and stenosis at internal os For thorough dilatation he preferred Sims' trivalve dilator, occasionally paving the way for this by Wylie's In a personal case, which he related, Wylie's dilator had proved too weak to stand the applied pressure He believed that, through the trivalve dilator, the effect was more thorough, and less harm was likely to be done owing to the screw attachment for regulating the dilatation

Dr Goffe thought that dilatation was especially of value in case of sterility He much preferred, to rapid dilatation under ether, gradual dilatation once a week during the intermenstrual period

Dr B McE Emmet stated that he did not believe in obstructive dysmenorrhea, but that pelvic inflammation was at the bottom of every case Every case of dysmenorrhea was better treated by local applica tions to the vaginal vault, and constitutional treatment, than by dilatation, excepting, of course, where stenosis, the result of caustic applications, etc , existed As for intrauterine therapeusis, the uterine canal had better be left religiously alone The uterine mucous membrane is over treated when periuterine inflammation is at the bottom of symptoms

Dr Porter, of Providence, asked for information in regard to permanency of results, and as to how rapid the dilatation should be

Dr Wylie, in closing, said that the dysmenorrhea might return with impaired health, but that in ten years of experience he had not had a failure The hyperesthesia, the prime factor, is not likely to return Thought that very few gynecologists would agree with Dr Bache Emmet He stated that Sims gave up the trivalve and screw long before he died, and used the instrument which he (the speaker) had modified, mainly by curving the tips As for the danger from dilatation, there is none if proper antisepsis be resorted to The objection to conical dilators is that they are apt not to dilate where we wish, at the internal os —*Am Jour of Obstetrics*, Feb , 1886

Splenic Hypertrophy with Atrophy of Adrenals — Dr Robert Saundby, Physician to the Birmingham General Hospital, has just recorded, in the Transactions of the Pathological Society, a very remarkable case of hypertrophy of the spleen with atrophy of the supra renal capsules A young lady who was only 18 years of age when she died, had suffered for three years from dark skin, progressive anæmia, and gradual splenic enlargement She passed dark colored urine, but this had been habitual with her since birth This dark color was due to indican There was never any leucocythæmia or marked oligocythæmia, but the red corpuscles were deficient in hæmoglobin After death, which resulted from an attack of vomiting, of which the patient had had several at intervals, the spleen was found to weigh 66 ounces The supra-renal capsules weighed 18 grains and 10 grains respectively, and under the microscope showed simple atrophy of their substance So far the case may be regarded as one of Addison's disease, due to simple atrophy of the supra-renal capsules, of which Hadden, Coupland, and Barlow have published examples But the remarkable feature of this case is that the father died at the age of 37 with the same symptoms, and was found to have a spleen which weighed 7½ pounds, while a brother, still alive, presents the same series of phenomena. This coincidence suggests that the atrophy of the capsules has been in each case congenital—a view which is supported by the microscopical appearances of the capsules, in which no trace of inflammatory action was observed The enormous splenic enlargement present in all three cases distinguishes them from ordinary cases of Addison's disease, in which hypertrophy of the spleen, though frequently observed, reaches very moderate dimensions The fact that there should be this tendency, even in ordinary cases, to enlargement, indicates, in Dr Saundby's opinion, that these enormous spleens depend upon the long continuance and extreme degree of the capsular affection It is noteworthy that Dr Saundby could discover no change in the structure of the semilunar ganglia, and that, with the exception of pigmentary deposits, the organs generally were free from obvious alterations —*The Lancet*, January 23, 1886

Injections of Calomel in Syphilis —Dr Neisser, Professor at the University of Breslau, recom mends in the *Deutsche Medizinal Zeitung* of November 30, his method of employing calomel hypodermically He uses the following formula ℞ Hydr chlor mit , Sod chlor , āā 5 parts, Aquæ dest , 50 parts, and injects a syringeful twice every two weeks, or once every week, into the gluteal region, penetrating deeply into the tissues Neisser claims that on account of the long-lasting and yet but very slowly-proceeding absorption of the mercury, this method is alongside of the inunction-cure to be regarded as the most efficacious and energetic treatment of syphilis He has treated one hundred and twenty-two cases (fifty-four males and sixty eight females) with these calomel injections, and feels quite gratified at the results In rebellious and relapsing cases this method gave especially favorable results The objections that can be urged against these calomel injections are that they occasion a good deal of pain, and not rarely produce infiltrations and abscesses, which untoward effects, however, can all be avoided by an ample ingestion of chloride of sodium, either as *an addition to the food or taken alone*

The nozzles of the hypodermic syringes used in Germany are about one third longer than those used in America, and are buried in the tissues to their full length It is claimed that the danger of forming an abscess is lessened by entering the lowest strata of the connective tissue, or even the muscles themselves The method as practised in America, however, gives such satisfactory results that there is no occasion to deviate from it —*Therapeutic Gaz*, January 15, 1886

JOINT-DISEASE IN LOCOMOTOR ATAXIA —At the meeting of the Pathological Society of London, on December 1st, DR W B HADDEN read notes of two cases of joint disease in locomotor ataxy 1 A man aged 50, three years before admission, began to suffer from a swelling of the left knee, the swelling, after extending down to the ankle, subsided, but recurred in six months Two years before admission, ulceration occurred in the under surface of the right great toe Symptoms of locomotor ataxy had existed for three years On admission, in addition to the lesion already mentioned, there was a perforating ulcer of the right foot The femur was displaced forwards and outwards, the tibia backwards and inwards, the patellar was much enlarged, and there was a bony plate below it, pus was withdrawn from the knee joint by aspiration Amputation was subsequently performed, and, after two attacks of secondary hæmorrhage, he recovered Along the margins of the articular surfaces were numerous bony outgrowths, but the head of the tibia was the only part affected by atrophy, in the subsynovial tissue in front of the lower end of the femur was some new bone The only change noticed in the peripheral nerves was some (doubtful) thickening of the perineurium in the internal popliteal 2 A man who had suffered for many years from severe gastric crises Six years before he came under observation, the left shoulder became swollen, and subsequently pus was discharged When admitted, the patient presented well marked symptoms of locomotor ataxy, and there was atrophy of the anterior group of tibial muscles The left shoulder-joint was disorganized, and the humerus shortened About the right elbow and right knee joints were some bony outgrowths, and the capsule of the shoulder joint was dilated, and contained some bone Many pedunculated, cartilaginous, and osseous growths sprang from the interior of the joint, and some were found free in the joint The head and neck of the scapula had disappeared, and the head of the humerus showed pure atrophy The spinal cord showed sclerosis of the posterior columns, extending into the lateral columns, and also the anterior root-zone The postero lateral groups of cells at the level of the eighth cervical nerve on the left side had disappeared, and nearly all the motor cells at the level of the third lumbar pair of nerves In the first case, the knee was in a condition of osteo arthritis, the shoulder in the second was typical of Charcot's joint-disease The poliomyelitis of the lumbar cord was clearly the cause of the atrophy of the tibial muscles, but whether the atrophy of the motor cells in the cervical region was the cause of the joint lesion, or secondary, was doubtful The condition of the medulla oblongata lent some support to Dr Buzzard's theory

DR BUZZARD said that the second case, which had once been under his care, was a most remarkable example of gastric crises The presence of sclerosis in the medulla oblongata in close relation with the vagus root, was very interesting, and lent support to the theory he had put forward —*British Medical Journal*, Dec 5, 1885

ALBUMINURIA IN STRANGULATED HERNIA —J ENGLISCH, in the *Centralbl fur Chir*, Nov, 1855, publishes the history of twenty-nine cases of strangulated hernia treated by taxis, and of twenty five operated on In the first series he found albuminuria ten times in the urine, in the second twenty-two times In thirteen cases of hernia, accompanied by inflammation, albuminuria appeared twice Albuminuria appears as soon as intestinal occlusion reaches a certain period, and presents certain lesions, the more marked is strangulation, the more evident is albuminuria In partially strangulated hernia it is barely present When the omentum and appendices are strangulated, or a filled hernial sac is inflammed, albuminuria is altogether absent When there is gangrene of the intestine, albuminuria is very evident, it decreases slightly after operation In fatal cases it is more abundant Urine decreases in proportion as albumin increases English attributes death in strangulated hernia to renal disturbance, in those cases where the necropsy does not furnish any indication The albumin precludes any but a slight attempt at taxis, and herniotomy ought to be preferred *London Medical Record*, Jan 15, 1886

ANTIPYRIN AS A HÆMOSTATIC —DR E CASETTI, (*Raccoglitore Medico*, August, 1885, *Gazzetta Degli Ospitale*, September 30, 1885, *Nouveaux Remedes*, January 15, 1886) is said to have used four and five per cent solutions of antipyrin successfully as a hæmostatic in a case of epistaxis, in one of resection of the elbow, and in one of removal of a nævus He thinks it superior to perchloride of iron in not incrusting the surfaces, to the actual cautery in not leaving an eschar, and to ergotin in not being poisonous in ordinary quantities Its antipyretic effect, and probably its antiseptic action, are additional advantages —*New York Med Jour*, February 6, 1886

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00

SINGLE COPIES 10 CENTS

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters.

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,

No. 65 RANDOLPH STREET

CHICAGO, ILLINOIS.

SATURDAY, FEBRUARY 27, 1886.

THE AMERICAN MEDICAL ASSOCIATION—IS IT DESIRABLE TO MAKE MATERIAL CHANGES IN THE PLAN OF ITS ORGANIZATION, PARTICULARLY IN THE DIRECTION OF ASSIMILATING IT TO THAT OF THE BRITISH ASSOCIATION WITH BRANCHES?

A letter in the issue of this JOURNAL for February 6, 1886, over the signature of "Branch," inviting attention to this question, has elicited several interesting letters from well known members of the Association, which we give in the department of Domestic Correspondence in the present number of THE JOURNAL. These letters contain many suggestions both for and against material changes that are worthy of careful thought.

It may appear to our correspondents, and, indeed, to most of the present active members of the profession, that the main question involved in this discussion is new, or broached now for the first time in connection with the organization of the American Medical Association. Such a supposition, however, is entirely erroneous, for it engaged the attention of the Committee appointed by the National Medical Convention assembled in 1846, and which reported the plan of organization of the permanent Association to the adjourned meeting in the following year in Philadelphia, and elicited full discussion both in the Convention and the first Session of the Association. The real question was, and still is, whether an efficient and general organization of the profession could be founded on a proper application of the principle of *representation* from local organizations to State, and from the State to the National as the union of the whole, or whether the National Organization should be self constituted, with provision for a broad nominal membership and a *Council* of lesser numbers invested with the whole management of the affairs of the Association, elected by itself, and consequently capable of self-perpetuation. The latter is the essential principle on which the British Association is founded, modified only by the formation of subordinate Branches, each permitted to elect one or more members of the general governing Council.

But the Committee appointed in 1846 to report a plan of permanent organization at the next meeting, after very careful consideration, rejected this principle and reported a plan of organization based entirely upon the representative principle, with a uniform numerical ratio to limit the number of representatives, and entrusting the entire control of the business of the Association to the regularly elected delegates that assembled each year, instead of to any more limited or select Council. It was claimed by those who advocated essentially the plan of the British Association, that the plan recommended by the Committee, having no provision for the election of a governing Council or any considerable number of members, but being dependent entirely on delegates elected annually by State and local Societies, would lack stability and be liable soon to crumble to pieces. On the other hand, it was claimed by a majority of the Committee and others that the creation of a National Organization with all governing authority vested in a limited number of members designated as distinctively *Fellows* or members of Council, elected mainly by the Association itself, and eligible to re election at stated intervals, was not in harmony with the modes of thought of our people, and would be likely soon to engender jealousies and rivalries both as to individuals and locations.

But much greater emphasis was placed upon the lack in such an organization of any active and powerful encouragement to the formation and support of State and more local organizations. While simple membership in the National Organization would be easy of attainment, without reference to membership in any local or State Society, one of the strongest incentives to the formation and active support of such societies would be lost; whereas, if membership in the National Association could be obtained only through membership in, and election as a delegate by, some regularly organized local Society, it would be constantly acting as a powerful incentive to the formation of such local societies in every part of our country, until at no distant time the great body of the regular profession would become embraced in social organizations—city, town, county, district and State, and from which delegates duly elected would constitute the National Society and make it truly representative of the profession of the United States. It is hardly necessary to state that the views of the Committee prevailed, and the plan of organization proposed was adopted with but little alteration. As there were at that time but few State Medical Societies in existence or in active operation in the States, provision was made for the admission of delegates from all legitimate medical societies, and institutions, including medical colleges, hospitals, asylums and infirmaries.

But the impulse given to the work of organization of the profession, by the successful establishment of the National Association, proved so efficient, that ten years had not elapsed before State Societies which had before been allowed to die were reorganized, and new ones organized in States where none had existed before, until regular State Societies and many of a more local character were in active operation in nearly every State in the Union. And the same active influence in sustaining and extending the affiliated local societies continues until the present time. The progress of events, however, soon developed the fact that the provision in the constitution of the National Association admitting two delegates from the faculty of each medical college, and one from the medical staff of each hospital, lunatic asylum, dispensary, etc., not only gave the medical men connected with those institutions a much larger number of delegates, in proportion to the whole number engaged in them, than were allowed to the society organizations, but it removed one of the strong motives for them to become members and efficient members in the societies in their own State. The fact that these men could go directly as (in one sense) self-elected delegates to the National Organization and become enrolled as permanent members, without any help from either county or State Societies, certainly removed one strong inducement for them to give active support to the latter. Yet by the public positions they held, it was claimed that as teachers, and hospital physicians and surgeons, they were preeminently qualified to impart most interest to all scientific work in the societies of their own localities. But whether conscious of the influence of this relation upon themselves or not, the fact became more and more apparent to others, until it eventually led to an amendment of the constitution by which the sending of delegates was restricted to regularly organized society organizations, thereby requiring the members of college faculties and the staffs of hospitals, etc., to gain admittance to the National Association through the same channels as the rest of the profession. To those who have been careful observers of the progress of events the change has not been without good results. We will reserve the further consideration of this topic for the next issue of THE JOURNAL. He is most wise who learns most accurately the lessons of the past.

MENINGITIS AS A COMPLICATION OF PNEUMONIA.

The testimony of competent observers has placed beyond doubt the fact that lobar pneumonia is occasionally, although rarely, complicated by the occurrence of cerebro spinal meningitis. Immermann and Heller, out of 30 cases of pneumonia, observed this complication 9 times. In these the meningeal inflammation was of the epidemic variety, and hence these observers accounted for the occurrence of this complication as a mere coincidence without any etiological connection.

They are supported in this view by Mende and Githens. Verneuil and Surugue, on the other hand, explained the occurrence of the complication on the ground of the intimate anatomico-physiological relationship existing between the lungs and the membranes covering the cerebro spinal axis. In order to understand their explanation it should be stated that they, in accord with other observers, recognize the occurrence of a meningitis in the course of pneumonia which is not epidemic, but is a simple inflammation. This is the variety of the disease which, according to Huguenin occurs with considerable frequency at Zurich, the field of his labors. In Ziemssen's Cyclopædia of the Practice of Medicine, vol. 12, page 621, he states that the percentage given by Chvostek, at Vienna, 4 out of 220 cases, is lower than that in Zurich. Huguenin has never witnessed epidemic meningitis as a complication of pneumonia.

Nauwerck, in a case of meningeal inflammation which occurred in the course of croupous pneumonia, discovered thrombosis of the pulmonary artery, and hence was led to conclude the complication was the result of emboli. It is doubtless in reference to this discovery of Nauwerck's that Huguenin says: "In two of the cases in which the pneumonia was found in the stage of suppuration, friable thrombi were found in the pulmonary veins; indeed, in one case, even the thrombi were partially broken down by suppuration. The supposition seems warrantable that puriform broken down material gets into the arterial current, is carried by it to the pia, and there sets up purulent inflammation." Jurgensen, in his exhaustive paper on croupous pneumonia in the fifth volume of Ziemssen's work, recognizes the occurrence of this complication, but states that in his experience at Kiel the diagnosis of it was found to be extremely difficult This he attributes to the fact that the meningitis is likely to declare itself only by "a single group of symptoms" He narrates a case in which the complication was shown only by a decided and obstinate rise of temperature which would not yield either to enormous doses of quinine or the repeated resort to the cold bath In contrast to these foregoing Wunderlich, Willich and Sielewicz have noted pneumonia as a complication of cerebro spinal meningitis

The latest contribution to this subject comes from Warsaw and is by PROFESSOR POPOFF In 90 cases of lobar pneumonia he has had 3 complicated by meningitis Two of the 3 died and were examined *post mortem* The pneumonia was in the stage of red and gray hepatization and the meningitis was suppurative, being in one cerebro-spinal and in the other confined to the convexity In all 3 cases the pneumonia was protracted and the meningitis occurred from the twelfth to the fourteenth day, and in all the symptoms due to the complication were marked, such as headache, stiffness of the neck, delirium, etc In the final stages loss of sensibility to pain, inability of the pupils to react to light were noted All set in with chills and headache In all the spleen was enlarged and the urine was found to contain albumen There was also paralysis of the lower extremities for a time in the one which recovered Popoff has collected 34 published cases of this complication, which together with his 3 make 37 in all He finds that 27 were examples of the inflammation limited to the convexity, while in 10 there was also spinal meningitis This fact speaks against the theory of Verneuil and Surugue, since, if the anatomico physiological proximity of the parts was responsible for the complication, the meningitis should in the majority of instances be cerebro spinal and not alone cerebral

Popoff believes also that were Nauwerck's supposition tenable, meningeal inflammation in connection with other affections would be more common, whereas it is well known that emboli find their way more frequently into the substance of the cerebrum than its membranes Renal disease and alcoholism he regards as predisposing factors Popoff attributes the complication to the presence of micro organisms, viz, the pneumonia coccus of Friedlander He assumes that in the stage of resolution these organisms are taken up into the general circulation and deposited in distant parts, there to excite inflammation In support of this explanation he cites the fact that their presence has been demonstrated microscopically in the mininges as well as in other organs Bright's disease and other *cachexiæ* may be of influence in rendering the meninges particularly sensitive to the deleterious influence of the pneumonic poison Popoff distinguishes three types of this disease First, the epidemic variety, which, however, has nothing in common with the pneumonia, second, that in which the meningitis is an accidental complication of the pulmonary affection and is due to embolism or otitis interna, etc, thirdly, the metastatic form, which is caused by the same etiological factor as is the pneumonia He groups his own cases among this last variety

Popoff's conclusions are interesting and, if one be inclined to endorse unreservedly the germ theory, it is satisfactory We are indebted for these facts concerning Popoff's researches to the *Berliner Klinische Wochenschrift*, vol 2, 1886

RECENT PROGRESS IN THE EXTRACTION OF CATARACT

At the meeting of the Académie de Médecine, of Paris, on January 5, M PANAS read an interesting paper on "The Recent Progress in the Operation of Extraction of Cataract" The first factor in the progress that has been made is, he thinks, the introduction of antiseptic methods into eye surgery, especially when the antisepsis has been post-operative So satisfactory have been the results, says M Panas, that surgeons have now been able to return to the flap operation, without iridectomy, reserving the latter for special cases

M Panas gives the following rules for operating 1 Use an antiseptic sure in its action and but slightly irritating, 2 Carry the antiseptic liquid into every recess of the operating field, and for this intra ocular washing should be the rule, 3 Cut a corneal flap as well regulated in form as in size, 4 The toilette of the pupillary field should be as complete as possible, careful attention being paid to every possible source of infection, 5 Before closing the eye operated upon the iris should be made to contract and be completely reduced, 6 Use a strictly antiseptic dressing, and keep the eye at rest for a sufficient time Panas regards the 1-20,000 solution of biniodide of mercury as the best antiseptic that he has yet used for these cases The formula which he uses is 1 litre of distilled water, 5 centigrammes of biniodide of mercury, and 20 grammes of alcohol (90°) The mercury is dissolved in the alcohol, and the solution is then added to the water shaking violently in a large flask, after which it is filtered This solution may be kept for an indefinite time It produces no irritation of the conjunctiva, is well tolerated, save in rare cases, by the cornea, and iris, and may even be injected into the interior of the eye The bichloride is a less powerful antiseptic than the biniodide of mercury, and is much more irritating

Panas does not seem to think the objections raised against the use of cocaine even worthy of mention As regards the incision for the flap, he thinks that one taking in two to three-fifths of the circumference of the cornea sufficient for the extraction of the opacified lens The puncture and counterpuncture are always in the sclero corneal limb With practice the operator will be able to make the corneal flap, in the arc of a circle, by a single stroke of the knife As a rule he avoids including the conjunctiva in the incision, in spite of the advice of von Graefe and Desmarres, since a conjunctival flap is of no use in the reunion of the corneal wound, and it may cause effusion of blood into the anterior chamber, denudation of the sclerotic, etc , which may retard primary union As soon as the operation is finished intraocular lavage is resorted to, after which a few drops of a solution of sulphate of eserine (1–1000) are instilled, while a pomade of eserine and vaseline is introduced into the conjunctival cul de sac By this means the pupil is kept contracted for twenty-four hours, and the iris is reduced To proceed with the dressing, the patient is directed to close the eyes gently, and each is covered with a linen bandage greased with a pomade of benzoate of mercury, which, with its antiseptic value, has the advantage of not irritating the eye in the comparatively large proportion of 1½ to 100 Dry carbolized cotton bandages are then superposed, layer by layer, and the whole is then firmly fixed so as to insure immobility of the wounded eye This dressing is removed every twenty-four hours, guarding against any movement of the eye for three or four days After this a simple bandage may be used to occlude the injured eye for two or three days The patient is usually well within seven days

Besides the shortening of the time of treatment, says Panas, the simplicity of this method is such that he has operated on diabetic and gouty persons, and those in whom acute articular rheumatism or pneumonia have occurred after the operation without cicatrization being retarded In the treatment of senile cataract, he says, he has returned to the flap extraction without iridectomy, iridectomy being reserved for exceptional cases Those who are interested in this subject would do well to read, in connection with the views of M Panas, here presented, the valuable contribution of DR J W THOMPSON, on the "Flap Extraction of Senile Cataract," which appeared in THE JOURNAL of February 20 Panas's paper may be found in the *Bulletin de l'Academie de Medecine*, No 1, 1886

YELLOW FEVER INOCULATION

We learn that Dr Irving A Watson, of Concord, N H , has recently received from DR DOMINGOS FREIRE, of Rio de Janeiro, a report on the inoculation for the prevention of yellow fever He has performed more than 6,000 vaccinations, and not a single person has contracted the disease, although many of them lived in the midst of the epidemic and some acted as nurses for those ill with it Between January and August, 1885 he vaccinated, in Rio de Janeiro while the disease prevailed, 6,051 individuals, not one of whom was sick Of the whole number, native and foreign, 2,282 were less than 20 years old In the district where 3,051 were vaccinated, 166 lived in houses where from one to five fatal cases occurred, and 279 unvaccinated persons died These vaccinations were practiced in the most unhealthy quarters of the city, which epidemics of yellow fever have habitually ravaged

Though no one has yet shown that Dr Freire's figures are false, or his methods erroneous, some of our contemporaries have commenced a crusade against him in which epithets are misused for arguments A Commission of competent medical men, two of whom will be officers of the Government, has been proposed to investigate the matter, and until that Commission reports it would be just as well to let the matter rest *sub judice*

A NEW MEDICAL JOURNAL —We have received the prospectus of a new journal called *The Neurological Review*, to be edited by J S JEWELL, M D , of Chicago, and published by Rand, McNally & Co , monthly, containing not less than 48 pages—with departments for original and selected articles, editorial, and reviews As its name imports, the journal will be devoted to the interests and advancement of the neurological department of medicine Dr Jewell established and edited the well known *Journal of Nervous and Mental Diseases* for several years with unusual ability, and we commend his present enterprise with pleasure, well knowing that whatever he promises he will more than fulfil The first number of the new journal is to appear between the fifteenth of April and the first of May All communications on the subject may be addressed to J S Jewell, M D , No 1239 Wabash Ave , Chicago, Ill

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, February 4th, 1886

THE PRESIDENT, B F BAER, M D, IN THE CHAIR

W H H GITHENS, M D, SECRETARY

DR CHAS MEIGS WILSON reported some

CASES OF LACERATION OF THE CERVIX UTERI WITH UNIQUE SYMPTOMS

The histories of the following cases were brought before the Society in order—*first*, to record what the writer believes to be unique symptoms of the lesion, and *secondly*, to elicit discussion in reference to the reflex nervous symptoms of the lesion, and, if possible, to draw the line of demarcation between them and the nervous phenomena of alienation But a few years ago we were given the doctrine, *ex cathedra*, that lack of contour of the cervix uteri was the principal cause of that train of nervous symptoms of which the histories here cited contain unique examples Prior to this, the clitoris was supposed to be the source of all the trouble And now that spaying has become the fashionable surgical procedure, the ovaries have been given the precedence in the causation of the grave reflex nervous symptoms attendant upon pathological conditions of the pelvic viscera Statistics have pretty well proven that, in a large majority of cases, destruction of the natural contour of the cervix has been the starting point of pelvic distress in a large number of such cases The subinvolution, with the subsequent conditions of prolapsus, hyperæmia, hypergenesis of tissue, ectropion of the cervical mucosa, and the inflammation set up by friction of the everted cervical mucous membrane against the posterior vaginal wall, which frequently occurs in neglected cases of laceration of the cervix, are undoubtedly the primary factors of pelvic irritation in many cases, and it is easy to see how this condition may set up pathological conditions of uterus, Fallopian tubes and ovaries secondarily To say precisely what is to blame is a very difficult matter The following cases are selected from a large number operated upon by Dr E Wilson in private practice, and by the author in the surgical wards of the Philadelphia Lying in Hospital

Case 1 —Mrs McF, æt 32, married, mother of three children, presented herself at the clinic of the Lying-in Charity with the following symptoms For the past year, she had noticed a tumor about the size of a small fœtal head in the right lumbar and the right half of the umbilical region The tumor was perfectly smooth, non nodulated, and freely movable in the abdomen She had had obstinate constipation, a good deal of vesical irritation, at one time had had a sanguineo purulent discharge from the vagina, this had entirely ceased for the last seven months She complained of deep seated, darting pain in the lower part of the abdomen, backache, intense cephalalgia and photophobia Her last child had been delivered fourteen months previously with instruments She had been under the care of a prominent gynecologist who had diagnosticated floating kidney, and recommended extirpation After a careful examination, in which I was aided by several professional friends, the diagnosis previously made was concurred in A careful chemical and microscopal examination of the urine failed to detect any abnormal constituent It was then determined that laparotomy for removal of the kidney, or cutting down upon it and stitching in proper *situ*, would be alike unjustifiable Upon making a more careful examination, including the uterus, the patient was found to have an extensive bilateral laceration of the cervix The contour of the cervix was restored and although the patient still has her floating kidney, all her distressing symptoms have ceased

Case 2 —Mrs S, æt 32, married, mother of two children, pelvis slightly contracted antero posteriorly Both children were delivered alive by forceps This patient was sent me, by her regular attendant, with the diagnosis of cancer of the rectum She suffered greatly from backache and headache, was constipated, passed ribbon stools and had agonizing pain upon defecation She had slight vaginal discharge, and a coffee colored, foul smelling muco purulent discharge from the rectum Rectal examination revealed an ulcerated surface extending apparently for about an inch and a half in length completely around the rectum, about three inches above the anus Small portions of the granular surfaces of the ulcer revealed, under the microscope, no evidence of malignant growth Specular examination of the vagina showed extensive bilateral laceration with acute retroflexion The woman presented no evidence of cachexia The uterus, though closely bound down by adhesions, was finally restored to its proper axis After several weeks the contour of the cervix was reformed Simple astringent applications were made four or five times to the rectal ulcer The patient made a complete recovery, and has had no return of symptoms since the operation

Case 3 —Mrs C, æt 22, mother of one child, with history of tedious instrumental labor This patient suffered from violent ovarian neuralgia, augmented at the catamenial periods She had a profuse leucorrhœa, engorged uterus and enlargement of the right ovary She also suffered at times from suicidal dementia, which was sometimes so violent that she required restraint Her case had been diagnosticated pyo salpinx, and oophorectomy advised Examination revealed an extensive bilateral laceration of the cervix, extending on the left side to the vaginal junction The cervix was restored, with complete cessation of all symptoms Examination six months after the operation failed to find tenderness or enlargement of the right ovary

Case 4 —Mrs S, æt 37, married, mother of five children This patient had been incarcerated in a private asylum for fourteen months, suffering with violent dementia She had the typical appearance of alienation No clear history could be obtained of her symptoms, except that she had distressing pelvic pain and profuse leucorrhœa Examination showed extensive laceration of the cervix Trachelorrhaphy was performed, with immediate amelioration of the symptoms Two months after the operation she was restored to her family completely well A year or more has elapsed since the operation in each of the cases, and the relief afforded has thus far been permanent These cases appear to the author to have had unique symptoms following and consequent upon the lesion, though, doubtless, those with more extended chances of observation have met with cases presenting analogous symptoms

DR JOSEPH PRICE made some remarks upon the effects of cicatricial tissue in the edges and at the apex of the laceration, of the effect of the laceration in inducing local engorgement and hypertrophy, and thus a long series of consequential symptoms He spoke of the value of rest and local treatment for the relief of these symptoms, but the relief so obtained is temporary, it will last but a few months, and sooner or later, after the patient is discharged as cured, the same symptoms recur If the cicatricial tissue is not all removed, and complete union secured throughout the entire thickness of the cervical tissue, the symptoms will return, or even be aggravated by the operation In his experience, conception results after operation in young women

DR HOWARD A KELLY said that he was glad to hear of the good results in Dr Wilson's cases, as a year or more had elapsed He thought cases of laceration of the cervix might be arranged in three classes 1 When the cervix, although lacerated, remains soft and flaccid, there will be no consequent symptoms 2 When cicatricial tissue is developed or ectropion is present, marked reflex symptoms will ensue 3 When there has been natural repair, but with inclusion or formation of hard or scar tissue, there will also be marked reflex symptoms To this latter class belong those cases, with hypertrophied glands and everted lips, of so-called erosion These second and third classes must be relieved by rest and local treatment, and then operated upon to keep them well Complete removal of the hard tissue, and perfect union of the coapted edges, must be secured Failure in either of these points will cause a return of the symptoms

DR BAER said that the symptoms were not due to the laceration, but to its inflammatory consequences To secure a good result, the inflammatory condition must first be subdued, and then the operation of closing the laceration will be in order It may take a long course of treatment to secure this necessary condition, but operation will probably fail to secure the desired relief without the preparatory treatment He had found, in some of these unsuccessful cases, union of the external surfaces only, and in others fistulous tracts between the suture points Cicatricial tissue seems to be sometimes formed after operation when union occurs by granulation Simple laceration without ectropion is very rare, and he would advise repair of the laceration in all cases to prevent future resultant inflammatory conditions It is desirable to have union by first intention to avoid formation of cicatricial tissues and suture-track fistulæ

DR WILSON spoke of the choice of method in preparatory treatment Local treatment once a week will often fail to have a good effect when a week or ten days in bed, with douches of hot water and glycerole of tannin on pledgets of cotton, applied daily, will accomplish rapid relief of the local condition Great care should be exercised in the removal of tissue, as complete closure of the cervical canal may happen He has seen two such cases which were detected at the next menstrual periods after the operation, the passage of a spear-pointed probe gave vent to dark grumous material

DR HOWARD A KELLY exhibited a specimen of

HÆMATOMA OF THE OVARY, WITH ADHERENT FALLOPIAN TUBE

This specimen is an example of a class of cases which stand peculiarly by themselves, cases of aggravated tubal and ovarian disease, on a small scale as compared with ovarian cyst, and yet in which there is enough change in the size and consistency in one or more of the structures of the appendages to afford most satisfactory ground for diagnostic precision under skilled bimanual examination These cases occupy a middle ground between the larger tumors, where disease is so palpable, and those haphazard attempts, the present reproach of gynecological surgery, in which the operation upon appendical structures is undertaken to relieve a *symptom*, and the diagnosis of pathological ovarian or tubal change is made after removal or not at all

This is the right ovary of a patient 21 years of age It is about the size and shape of a large Spanish chestnut I was able to handle it freely by bimanual examination, and determined exactly its size, shape, consistence and relations before operating The indications for operative interference after I had made my diagnosis, were greater than in the case of any large ovarian cyst I have ever seen, and the prospects and result of any form of palliation were futile Almost the whole of this large ovary is filled with a blood clot, soft and jelly like in part and in part firm, fibrous and apparently intimately united to the ovarian stroma This clot is surrounded by a shell of apparently normal ovarian tissue, throughout which are seen a number of follicles and old corpora lutea A remarkable feature is the way in which the fimbriated extremity of the tube is spread out like a a sucker over the surface of the ovary and glued fast by adhesions, so that the line of demarcation between tube and ovary is but faintly indicated From the line of junction numerous vessels course in a radiating manner down over the ovary The left ovary is below normal size, but contains many pea sized black clots

The second specimens which I now exhibit were removed this afternoon The case is an example of the third class, in which the operator has nothing but a symptom to guide him My patient, 35 years of age, suffered from an increasing menorrhagia for fourteen years Lately she has been bleeding half the time She has had recourse to every possible plan of treatment with but slight and temporary relief The only thing I could do was to perform oophorectomy and stop her menstruation One ovary weighs 139 grains, the other 103 grains A beautiful corpus luteum of menstruation, about two and a half weeks old, shows that the hæmorrhages, which retained all along a menstrual periodicity, were in reality menstrual The tubes are free from disease In one ovary a globular pellucid cyst lies between the layers of the broad ligament in close proximity to the fimbriæ, the tubo ovarian ligament being spread out over its surface

Dr Wilson called attention to the fact that in the first specimen the tube had been occluded by a torsion or twist upon itself

Dr Baer remarked that it would be interesting to know the results in Dr Kelly's last case In such a case there is of necessity a cause for the hæmorrhage, there is no apparent diseased condition of ovary or tubes sufficient to account for it Hæmorrhages from the uterus are often associated with vegetations upon its lining surface, but these are not always present He alluded to one case in which hæmorrhage continued to be profuse after the removal of the tubes and ovaries, which had been very much diseased

Dr Price remarked that in this last case the continued hæmorrhage might be the result of body habit, although the original cause might be removed

Dr Harris spoke of a case of fibroid tumor of the uterus with menorrhagia, in which removal of the tubes and ovaries gave immediate relief

Dr Kelly had, eight months ago, removed both ovaries and tubes, and the menorrhagia still continues In the case operated upon to day the curette had been used, but no vegetation had been found A strong tincture of iodine applied thoroughly to the inside of the uterus and vaginal packing would quickly stop the hæmorrhage for the time, but it would soon recur Operation was performed to relieve the symptom hæmorrhage by bringing on the menopause, and not because the ovaries were supposed to be diseased

Dr Joseph Price exhibited specimens from a case of

PYO SALPINX

The tube was as large as the finger and cheesy in consistence, and was easily broken, even by the bite of the hæmostatic forceps The patient was in a typhoid condition, with high evening temperature, emaciation, quick pulse, pain in locomotion There certainly had been leakage of pus before, but two ounces escaped at the time of removal Adhesions were numerous but were cheesy, and broke down readily After the operation there was rapid subsidence of the pulse and temperature, with the other symptoms Free washings of the abdominal cavity through a drainage tube were practiced for a few days There was a clear history of gonorrhœa The other tube and ovary were not enlarged

Dr Beates remarked that in one case upon which he had operated repeated attacks of peritonitis had caused large deposits of flaky lymph in Douglas's cul de-sac These were nicely removed by sponging

Dr. Baer raised the question of the gonorrhœal origin of the salpingitis in Dr Price's case, which was unilateral, while gonorrhœa usually causes both tubes to become diseased

Dr Price stated that Mr Tait's new book reported a gonorrhœal case of unilateral salpingitis Comparing with the male analogue epididymitis, which is usually unilateral, would support the idea of such an origin A free leakage of secretion from the tube, and absence of constriction, may prevent the accumulation of pus on one side

---

CHICAGO MEDICAL SOCIETY

Stated Meeting, February 15th, 1886

The President, C T Parkes, M D , in the Chair

Dr William T Belfield gave a brief outline of

SEVEN CASES OF DIGITAL EXPLORATION OF THE BLADDER IN THE MALE

Case 1 —A patient 58 years old, who had been treated for several years, by various physicians, for cystitis and prostatic enlargement, complete retention had occurred several times A diagnosis of villous tumor of the prostate was made, the nature of the growth being predicated upon the semi gelatinous state which the urine presented after standing for a few minutes—an almost pathognomonic symptom when present Exploration revealed a small villous growth just to the left of the urethral orifice in the bladder, and imbedded in its meshes were found two stones, as large as a pea and a bean respectively, whose existence had not been suspected Patient made a rapid recovery, and was entirely free from his old commplaint three months afterwards

Case 2 —A boy 17 years old had for two years suffered from frequent and painful urination, during which time considerable pus was constantly present in the urine A probable diagnosis of tuberculosis of the urinary tract was made, and was confirmed some time afterward by the discovery of the characteristic bacilli in the urinary pus At the urgent request of the parent the bladder was explored, with negative result Some months afterwards nodular enlargement of the prostate and epididymis were developed Patient's symptoms unimproved by the operation

Case 3 —A man 63 years old, in the last stages of chronic cystitis, was admitted to the County Hospital Had been treated for enlarged prostate No enlargement of this gland could be recognized, but there was found, upon rectal examination, a collection of calculi occupying the exact site of the left seminal vesicle Upon exploration of the bladder it was found that these calculi were contained not in the vesicle, but in a diverticulum of the bladder, where they were completely encysted and covered with mucous membrane This covering was torn and seventeen stones were removed The patient's condition was much improved for two weeks after the operation, but at the end of six weeks he died

Case 4 —A man 38 years old, suffering from all the symptoms of an extremely tight stricture of the deep urethra No stricture could be found Upon exploration of the bladder there was discovered a pedicled cyst attached to the upper orifice of the urethral opening, and completely occluding the urethra like a valve, the tumor appeared to be as large as a small walnut. During an attempt at removal with forceps the cyst collapsed, about half an ounce of clear fluid escaping. The patient recovered rapidly, and has since remained quite free from urinary irregularities. This appears to be the first recorded instance of simple cyst in the male bladder.

Case 5.—A patient 38 years old, admitted to hospital in a typhoid condition, suffering from cysto-pyelitis for which no cause was discovered. Exploration of the bladder showed nothing abnormal. The cystitis and pyelitis subsided completely. When patient was able to leave the hospital, it was discovered that he was suffering from an incipient myelitis.

Case 6.—A man 31 years old, admitted to hospital with violent and fetid cystitis. It was found impossible to pass any instrument over a prostatic obstruction into the bladder; from the rectum the prostate was found irregularly enlarged. Upon exploration of the bladder, a malignant tumor, involving the prostate and a large part of the bladder wall, was discovered. Complete anuria ensued, and death from uræmia on the fourth day. At the autopsy, hydronephrosis of the left kidney, caused by a pipe-stem calculus of the ureter, was discovered.

Case 7.—A man 59 years old was admitted to the hospital for a chronic cystitis of fifteen years' standing, caused by prostatic enlargement. Perineal incision was made for temporary relief. Three weeks later a portion of the obstructing prostate was removed through the perineal wound by the galvano cautery. Complete recovery; the patient, who had for two years been practically unable to urinate except through a catheter, now passed water freely without assistance; the cystitis subsided. Nine months afterwards, acute uræmia and death. At the autopsy, small cirrhotic kidneys were found. This is believed to be the first case recorded in which a considerable portion of the hypertrophied prostate has been deliberately and intentionally removed.

On concluding his paper, Dr. Belfield spoke of a case which came into the hospital in a state of extreme exhaustion, evidencing violent cystitis. Urine containing pus was passed every fifteen minutes with extreme pain. It was impossible to get an instrument into the bladder more than half an inch. The man was half unconscious and could give no history, but by rectal examination it was discovered that the prostate was very much enlarged in the left lobe, the right lobe appearing normal in consistency and size. The doctor thought this almost a proof that in a man of this age, 31, the seeds of tuberculous disease were present. The bladder was opened and the finger inserted in the usual way, discovering a malignant growth covering an inch and a half of the left wall of the bladder. After the operation the patient passed half an ounce of urine, but died in three days from uræmia. The bladder and kidneys were secured and found to be the seat of extensive hyperinosis, caused by a calculus. Another case was that of an emaciated French Canadian who had had trouble for eighteen years, and had depended entirely for urination upon the catheter for two years. The usual perineal incision was made, and a portion of the prostate removed. The operation was successful and the man was able to do without the catheter, although Dr. Belfield advised its use once a day. In June he had a slight attack of cystitis, due to the fact that he had persisted in ignoring the advice in regard to the use of the catheter. About the 10th of September he was taken with uræmic convulsions, and died on the 18th. The last few days the urine became cloudy again. The bladder and kidneys were secured, and a channel found in the prostate large enough to admit the forefinger. Dr. Belfield thought it would have been better to have cut down from above in the hope of relieving the prostatic tumor.

DR. E. ANDREWS suggested to the members that this subject was more important than has formerly been supposed. The former examinations made in these cases were very imperfect, and though the finger used occasionally to be put in the bladder it was not dreamed that the whole circumference of it could be reached. He thought it should be impressed upon the members of the profession that the bladder can and ought to be explored.

THE PRESIDENT thought this procedure for diseases of the bladder so new that it might be called novel, and it seemed singular that at so late a day the bladder should be explored in this way, when surgeons have so long known that the bladder could be opened in many ways without injury to the patient. He thought the profession greatly indebted to Dr. Belfield for his remarks.

DR. W. M. AXFORD thought an incision in the perineum might facilitate a cure in cases of fistula, which at present are very difficult to cure, but did not know that it had ever been tried. We do know that such fistulæ are very difficult to cure, probably because the urine continually runs over them. The procedure is practically harmless and may effect a cure.

DR. W. T. BELFIELD said, in conclusion, that this procedure of inserting a drainage tube through the perineal wound for curing fistula of the urethra is mentioned in Harris's book, and seems to work with entire success. There was one point upon which he congratulated himself, viz., the discovery of cyst of the bladder. So far as he knew nothing of the kind had been recorded in either the pathological or clinical literature of the bladder. The misery that it can cause is illustrated in the case under discussion, and from its nature it offers every hope of a cure.

DR. W. L. AXFORD read a paper on

NOTES ON GENITO URINARY SURGERY,

in which he said that he believed gleet is due to a stricture of the urethra, and can be cured by curing the stricture. He believed that dilatation cured a stricture by exciting inflammation at the seat of the stricture, and thus causing the absorption of the exudate. In the treatment of strictures he believed that perineal section is best in strictures which are deep seated, narrow, or unyielding, or complicated by fistula or urinary infiltration; internal urethrotomy in all strictures of the meatus or fossa navicularis, for they will not stretch. For other strictures he would advise, as the case demanded, dilatation, divulsion, or internal urethrotomy If the stricture is resilent, divulsion or internal urethrotomy, preferably the latter He believed the dull pain in the back, and at times in the head, during the later stages of gonorrhœa to be due to urethral reflexes Cure the gonorrhœa or stricture and these disappear

He cited cases in which severe cephalalgia and skin diseases had been cured by curing strictures by internal urethrotomy Also, cases in which dysuria and vesical discomfort had been allayed by slitting the meatus In female urinary troubles, after excluding uterine disease, he had given relief by digital dilatation of the urethra

Dr E Andrews referred to the point whether there is any danger or not in urethrotomy European statistics show a considerable amount of danger in operations for stricture He did not know the reason for mortality in Europe, for he thought it the general experience in Chicago that men don't die of these operations Long ago he had left off keeping count of the cases he had operated on, and could not recall an instance in his own practice or that of any one else in this city in which the patient died in consequence of the operation for stricture As to the question of divulsion, or cutting, he had performed the two operations indiscriminately, sometimes both on the same patient He thought divulsion and cutting produce precisely the same result Some strictures will stretch out under the divulsor and go back again, and cutting is better for these cases, but neither appears to be dangerous He had found divulsors from New York instrument makers repeatedly breaking down under strong strictures Otis's instrument he thought exceedingly strong, but even that had failed in one instance He expressed the belief that divulsion, thoroughly carried out, is as safe as cutting

Dr F E Waxham referred to a unique case coming under his care of stricture in a child aged four years He was convinced, however, that stricture is very rare among children This was the only case that had come under his observation Otis alludes to two causes—masturbation and gonorrhœa In this case he found no history of gonorrhœa, and the mother denied the practice of masturbation The child was put under the influence of ether, the stricture was so closed that he could only enter the bladder by means of a very fine bougie, this was followed by a larger one, this by a small catheter, and this by a steel sound, and the child was then able to pass the urine without difficulty Before dilatation the child would undergo the greatest suffering every time he passed water, would scream and strain for several minutes, and oftentimes strain so severely as to cause evacuation of the bowels After the first dilatation the child did nicely for a week and then was as bad as ever, the second dilatation was three weeks ago, and there has been no further trouble

Dr A B Strong asked if the cure was permanent, after cutting unless constantly followed up with the catheter He wished to know if there is anything better than simple dilatation Cutting and divulsion are more rapid, but he thought gradual dilatation offered as good and permanent results

Dr W T Belfield suggested two points in Dr Axford's paper that required notice, the value and the safety of cutting He thought it absolutely imperative that we limit our cutting operations strictly to the pendulous urethra This was not merely a theoretical and anatomical consideration, but a practical one He thought Dr Axford in speaking of the three methods, stretching, divulsion and cutting, omitted one of the most importance, viz , the use of a constant electric current Although this had not received a great deal of attention from the profession he thought anybody who tried it would never give it up It is said to produce the most permanent results, and is convenient and easy He had tried it in his own practice, once in the hospital where he had the privilege of cutting, but tried the battery out of curiosity and found it worked nicely, and again in private practice where it was extremely important to the patient that no perineal section should be done As to stretching the female urethra with the fingers, he thought it dangerous When house surgeon in the County Hospital he had seen a woman die of peritonitis when that was done He thought the best instrument for this purpose to be Stein's dilator, which has a continous dilatation

Dr W L Axford said, in conclusion, that dilatation always has to be followed out by the occasional passage of the sound for an indefinite period of time; all the patient's life If the stricture is divided clear through Dr Otis claims that a perfect cure will be made and no after treatment will be necessary Dr Axford thought that Dr Otis, although an extremist on this subject, is about right As to cutting in the membranous urethra, he did not think anyone would do that He had never had experience with the galvanic current, had heard it recommended and also discountenanced In dilatation of the female urethra he had always used his fingers and succeeded first rate Would always prefer to use his own hand, as no instrument equals the human hand

(*To be concluded*)

DOMESTIC CORRESPONDENCE

BRANCHES OF THE AMERICAN MEDICAL ASSOCIATION

To the Editor of the Journal

Dear Sir —I have read with much interest "Branch's" letter in The Journal of February 6th, and agree with him that the matter ought to be taken up at the coming meeting in St Louis Within recent years the Association has taken two important steps—the establishment of The Journal and the admission of "Members by Application" These have materially extended its influence and increased its membership

The numerical relation between the regular profession in the United States and the Association is still small, but even if an increase exceeded the most sanguine expectations a scattered membership of many thousands would not be so powerful as one smaller but disciplined and united What is wanted is organization, a system by which the profession can express itself as a unit upon vital questions, and through which the greatest possible benefit will accrue to individual members The British Medical Association is thoroughly organized by numerous branches, yet the area of territory in which this system has been found so successful is less than that of many States of the Union In this vast country members of the American Association are scattered North and South, East and West, the only method of reunion is an annual meeting, which takes many practitioners a journey of 2000 miles to attend, and an expenditure in time of two weeks During the interval between these assemblies the Association is practically non-existent, it is difficult to obtain even a collective expression of opinion, and as a factor in politics its influence cannot be exerted, owing to the want of proper representation

It will be impossible for regular medicine ever to attain its rightful position in America without some system whereby its sentiments can be voiced, and this should be the National Association, organized by its branches, in every State and Territory, represented and governed by its council, and kept in constant communication through its JOURNAL The methods by which this is attainable must be adopted at a general meeting of the Association, but it will be profitable to discuss the matter beforehand, so that they who undertake its inception may have the benefit of previous deliberation Meanwhile, it is well to deal with the objections which may be urged when it is proposed to interfere with existing organizations

The "two reasons" which "Branch" puts forward in regard to State Societies are really the principal obstacles to encounter, namely status and finance Of these the first is least important There would be no "dependency" except in theory The Society which organized with similar objects and adopted the "Code of Ethics" of the Association for its guidance is already in close affiliation, otherwise its autonomy is complete In its own section it should be supreme, and it would remain the centre to which the local societies focus The subject of finance is more important and must be carefully considered It is not too sweeping a statement that no State Society is numerically as strong as the regular profession in that State would entitle it to be Its income is small and modest balances in the treasury are the rule The principal expense is the annual volume of Transactions Whether this publication is desirable is a question No doubt much of the matter might be "profitably dispensed" with and the "very bad" papers omitted, but it is well to bear in mind that some of these are reports from various sections and must necessarily be printed They, however, serve a useful purpose by acting as an incentive to better work, and tending largely to keep alive an interest in the Society and its annual assembly THE JOURNAL of the Association could not undertake to publish more than the minutes of a meeting, yet any scheme which proposes to abolish the publication of this matter will probably be received with disfavor, and in my opinion may be harmful in its action With local or County Societies the case is different They do not publish their transactions, and the actual running expenses are comparatively trivial, so that their amalgamation would present fewer difficulties

It is open to consideration which should be adopted, either to make each State Society a Branch of the Association, or to organize small Branches and leave the State Societies as now constituted As a commencement the latter appears to be the most feasible project and likely to afford a large measure of success Taking the expense *per capita* "Branch" says that "the number of members of State Societies who cannot afford to pay two sets of dues is extremely limited " This is very true, and with it comes a question of economy A large number of physicians belong to a local society, the State organization, and the Association as well, so that they pay three sets of dues If, therefore, a comprehensive scheme be devised which shall organize the profession under one common head, a saving can certainly be effected

I trust that the matter will be fully discussed and some measure adopted which will enable a Republic of Medicine to rise and flourish in these United States Yours truly,

JAMES H PARKINSON, L R C S

Sacramento, California

TO THE EDITOR OF THE JOURNAL

Dear Sir —In your issue of February 6th is an item of correspondence on "Branches of the American Medical Association " I am sorry that I cannot altogether agree with the conclusions of your correspondent as to the propriety or wisdom of the proposed "Branches " Let us examine the question with a little care "Branch" proposes that we shall, in this country, adopt the method of the British Medical Association to perfect our own organization Their method, as he sets forth clearly and distinctly, consists in the formation of Branches under regulations of the General Council of the British Medical Association, in which each Council in each Branch has a single voice, and that "any number of members, not being less than twenty, may form themselves into a Branch of the Association, subject to such Branch being recognized by the Council Each Branch shall be free to govern itself as its members shall see fit, but no Branch law shall be valid which, in the opinion of the Council, may contravene any fundamental law of the Association Each Branch shall pay its own expenses, and no Branch shall be deemed for any purpose the agent of the Association, or have power to incur any obligation in its behalf "

There are thirty-four such Branches, it is stated, in the British Medical Association It occurs to me in the consideration of this question that, while the so-called Branch plan may be a very desirable one for Great Britain, it is not adapted to the customs of this country, and the "plan" will not be popular, or meet the wishes of a majority of the profession The object of the proposed change, if I understand your correspondent correctly, is to increase the power and membership of the American Medical Association It seems to me that very desirable object will be much better attained, with less friction, if we simply open the doors of the Association so that its members shall include the members of affiliated State Medical Societies who shall have inscribed their names on the register, and certified their adherence to the regulations of the Association for the government of its members in professional life. The adoption of such a rule would at once make every member, in good standing, of a State Medical Society in affiliation with the American Medical Association sending delegates to its annual meetings, a member of the American Medical Association. The rule might further provide that any member failing to pay his dues for any year would thereby become indefinitely suspended from membership in the Association. This plan, it seems to me, is much simpler than the one proposed by your correspondent. It utilizes already existing organizations, and does not change the present plan of organization, which is what I may designate, as contra distinguished from the British plan, the American plan, and therefore, in my opinion, decidedly preferable for use here, to any imported from Europe.

It is not possible for every member of a State Medical Society to attend the meetings of the Association, but by their being permanent members of the Association they will be entitled to the receipt of THE JOURNAL, and then, as now, in the election of delegates to attend the business meetings of the Association—they alone having power to vote—they will be fully represented. So, then, it appears, as a matter of fact, the State Medical Societies, in affiliation with the American Medical Association, are already "Branches" in effect, and it only remains to open the doors of membership to all members of the respective Branches, *i. e.*, State Societies in good standing. The autonomy of the "Branch" is nominal in England, in our country it is real, and in accordance with our political system, which medical men, as patriots, ought to uphold rather than decry.

Therefore, while I favor the widest possible basis of membership for our general Association, I should oppose the supplanting of our State Societies by any Branch of whatever degree, and in fact there is no need, for as already pointed out, the present State organizations can not only strengthen the general Association by encouraging large membership therein, but if the American Medical Association bases the claim to membership on the applicant's standing in his own State Association, that basis will also serve as an element of strength to the State Society, thus proving the wisdom of the old moral which we adopt as our political maxim, that "in union there is strength." Very respectfully yours,

JOHN B. HAMILTON, M.D.

Washington, February 10, 1886.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—I have been much interested in the letter which dealt with the subject of "Branches" in your issue of February 6, page 163. No one can take exception to the spirit of that letter, though one may differ when it comes to the details and their execution. The formation of such Branches, in my opinion, should proceed somewhat differently from the method suggested by "Branch."

In the first place the American Medical Association should be divided into a *governing body* and a *working body*. The latter could be composed, as it is now, of members of the regular profession, who have attended in the capacity of delegates to this part of the organization, its Sections and of "Members by Application." The former should be composed of *delegates only* of State and Territorial Branches, who should be chosen by these bodies under rules made by the American Medical Association, somewhat like this:

1. The Branches of the American Medical Association shall consist of the legally recognized State or Territorial medical organizations.

2. The State or Territorial Branches of the American Medical Association shall be composed of two parts, a governing body and a working body. The former shall be composed of delegates, one for every subordinate society, of all medical organizations, who recognize the authority and subscribe to the constitution and By-laws of the State or Territorial Branch of the American Medical Association.

3. The working body shall consist of all regular physicians, who are elected to membership under the rules of the Branch, not conflicting with those of the American Medical Association. All laws and all matters tending to maintain and enhance the interests of the American Medical Association, its Branches and their members, shall emanate from the governing bodies, to be known as the Council of the American Medical Association and the Council———Branch of the A. M. A. respectively, with this proviso, that everything suggested by such Councils must receive a ("two-thirds," or "three fourths"?) vote of the whole Association in annual meeting assembled to legalize it. And, further, no rule or motion shall be adopted by a Branch, or its component parts, which conflicts with the already existing rules of the higher organization.

4. The Council of the American Medical Association shall consist of one delegate for every (ten or twenty?) members of the State and Territorial Branches. Said delegates must be members of the Council of their respective State or Territorial Branches. Provided, however, that no person shall be eligible to the Council of the State or Territorial Branch, who has not submitted a paper, in some Branch of the science of medicine, which has been accepted for publication by his society. And provided further, that no person be eligible to membership in the Council of the American Medical Association who has not submitted a paper upon some subject connected with the science and art of medicine, which has been accepted for publication by the State or Territorial Branch of the American Medical Association of which he is a member.

5. The members of the Councils of the American Medical Association and its Branches shall be known as "Fellows" of the American Medical Association, and as "Fellows" of the———Branch of the A. M. A. respectively. And they shall retain this title as long as they are in good standing in their society and

State or Territorial Branch. All officers of the Branches of the States and Territories, as well as those of the American Medical Association shall during their service be *ex officio* members of the Councils of their respective societies.

Such suggestions amended as wisdom shall dictate, would be followed by many benefits, the formation of local societies, both in cities and counties would be stimulated, the State organizations would grow strong, *pari passu* with the multiplication of local societies, and the whole profession of the United States would have the novel experience of demonstrating for itself, that "in union is strength." But this beneficial reaction would not only appear in the political and social relations of the medical profession but also in its scientific aspect. For the scheme offers advancement and position only to those who distinguish themselves by their work in the field of medical science and practice.

A dependency of the State and Territorial Societies upon the American Medical Association would be established only in so far as the Branches need the *strong arm* of *union*, whilst in all other matters they would be as unmolested as ever. For really a moral dependency exists now, as was demonstrated by the action of the American Medical Association towards the New York State Medical Society, and towards a member from Nebraska in late years, who was prevented from taking his seat in the Association on account of non-payment of dues in his State Society. Why not call into life the strength of "legal dependency," when its weaker brother, the "ethical submission," existed long ago? A relationship which would supplant the restriction of the few in wrong, by the protection of the many in right would certainly be a long step forwards.

Another, and by no means small factor in such a scheme, would be the strength and therefore usefulness, which the JOURNAL OF THE ASSOCIATION would receive. "Branch" says: "It could scarcely be supposed that all the papers could be published in one journal." I cannot understand why such a supposition should not be entertained. If the membership of the American Medical Association could be doubled, why should not THE JOURNAL OF THE ASSOCIATION be enlarged one half its present size? A journal of the dimensions of the *London Lancet* could easily publish, in its fifty-two yearly numbers, all the papers submitted at the State Society meetings and and at the annual meeting of the Association—especially if a little more of the "survival of the fittest" were indulged in, which would be as beneficial to medical literature as it is to nature. The present tendency in medical journalism is evidently in the direction of the representation of specialties, thus limiting the need of general journals more and more. These will find their usefulness only in the publication of *news*, and of matters of general interest to the profession, and these things the JOURNAL OF THE ASSOCIATION could certainly furnish, and fitly so, for every physician in the United States. And here the suggestion of "Branch," somewhat modified, would apply. Members could publish their papers in journals devoted to the specialty of which they treat, and if these journals did not accept them it can most generally be surmised that the emanation was not worth printer's ink. It is eminently correct that many papers, instead of making the costly yearly transactions more costly still, had better find an early grave in the waste basket of the editorial sanctum.

It will be seen that my scheme differs from that of "Branch" in one particular materially. He says of the British Association: "Any number of members, not being less than twenty, may form themselves into a Branch of the Association." This is already true of the American Medical Association, for it recognizes delegates from any regular Medical Society in the States and Territories, and in my opinion this is the very weakest point in its organization. By this action it sustains the Local Societies at the expense of the State Societies, and these in their turn pay the Association with the same coin, with this difference, however, that the Association lavishes its privileges upon independent local societies whilst the State Society, deprived of the strength of these local societies, sends a weaker delegation to the Association's meetings. The proviso that such bodies must be recognized by their State Societies goes for naught, we have one of these societies in my State, it does not affiliate with the State Society, and yet every member thereof would be entitled to recognition by the State Society and the American Medical Association. They ignore the former and acknowledge the latter, and, permit me to say it, the Association meets only once a year and a good ways off from them, so they are safe.

The *body* of the medical profession of the United States—the American Medical Association—should not be connected with its *fingers* only (the local societies) as it is now, but should interpose the strong *arms*, as represented by the State and Territorial Societies, thus making the fingers more useful, the body more powerful, and the whole more harmonious. This is evidently the object of "Branch," it is the hope of

STATE SOCIETY.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—In regard to the communication signed "Branch," which appeared in THE JOURNAL of February 6, I submit the following. It seems that the British Medical Association is formed or made up of societies which are known as Branches, and that a man who becomes a member of a Branch is at once a member of the Association, and that a part or the whole of the membership fees and dues go to the Association. The American Medical Association is made up of permanent members and delegates from State, District, County and Local Societies. Until recently, in order to become a member of the Association, a physician had first to be delegated from his Local or State Society, and be thus registered on the books of the secretary. Then he was a permanent member as long as he stood well in his Local and State Societies and paid the annual dues to the treasurer of the Association. Now, any man in good standing in his Local or State Society can become a permanent member of the Association by bringing proof of such standing, paying his dues and signing the Constitution. In the British Medical Association a physician becomes a member as soon as he joins a Branch.

In the American Medical it is different. Membership in a Local or State Society in affiliation with the American Medical Association only *qualifies* the physician to become a member of the Association. With this last exception, and the dividing the fees and dues paid into the Branch Societies, with the Association, the laws governing in the American Medical are very similar to those governing in the British Association, and I can see no other object in making the changes suggested than that of increasing our membership and strengthening or replenishing our treasury, at the sacrifice of our State Societies, which have done good work in standing as the only gates through which entrance to the Association could possibly be effected, and it occurs to me that the moment they are removed we will let down the bars to hordes of crooks and charlatans, whose crookedness shuts them out of Societies at home where they are best known. Once the Association determines to remove such safeguards, the Code will become a thing of the past and the Association the resort of thousands who disgrace the name of doctor. Fearing that such would be the effect of the changes suggested by "Branch," I must beg to record myself as against the paper in its present shape, though in doing so I ask that you will not class me among the opponents to any change which will redound to the dignity and prosperity of the Association.

Very truly yours,

J. M. Keller.

Hot Springs, Ark., February 9, 1886.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Laparotomy in the Treatment of Penetrating Wounds and Visceral Injuries of the Abdomen.

At the last meeting of the New York County Medical Association, Professor Frederic S. Dennis read probably the most elaborate paper that has yet been prepared on *Laparotomy in the Treatment of Penetrating Wounds and Visceral Injuries of the Abdomen*, and it was most richly illustrated by pathological specimens of great variety from a number of the cases referred to in it. The conclusions at which he arrived after a full consideration of the subject were stated as follows:

First. That penetrating stab wounds of the abdomen are less fatal than penetrating gunshot wounds, but that the former are fatal in too great numbers to allow the surgeon to be content with the older methods of treatment.

Second. That if the stab wound has injured the intestine or any abdominal organ, laparotomy is indicated. It may be indicated also in cases where the gut is not perforated, but where it may have become twisted as a result of the stab wound.

Third. That in a penetrating stab wound in which doubt exists, the diagnosis should be made certain at once, in order to pursue a proper line of treatment.

Fourth. That laparotomy offers no additional danger to the patient, if properly performed with the strictest antiseptic precautions.

Fifth. That while the number of cases in which there was an exploratory laparotomy made in stab-wounds of the abdomen affords insufficient data upon which to establish any fixed rule of practice, the same principle which is recognized in the performance of laparotomy for gunshot wounds of the abdomen is also applicable to penetrating stab wounds.

Sixth. That the enlargement of the original wound for an examination of the peritoneal cavity will not enable the surgeon to exclude in all cases fæcal extravasation, perforation, volvulus and hæmorrhage. These may all exist, and yet no evidence of their presence be manifested upon inspection through a small opening.

Seventh. Neither the size, shape, character and velocity of the bullet, the attitude of the patient at the time, nor the kind of weapon used to produce a stab wound, seem to Dr. Dennis to influence the question of laparotomy.

Eighth. It is possible to have a fatal hæmorrhage from the large venous trunks in the abdomen, and this hæmorrhage not be discovered until the cavity is about to be closed.

Ninth. That the sutures, if properly applied, will close the perforation in every case, no matter how lacerated the wounds are, or the sutures will close the wound in case of resection of the gut, so that no leakage will occur if water is forced through the sutured interstices.

Tenth. The success of laparotomy is to be attained when every arrangement is complete and perfect.

Dr. Dennis paid a tribute to the remarkable foresight of the late Professor Gross, of Philadelphia, whose prophetic utterances of nearly half a century ago in regard to this subject he quoted, and said that the credit of this great achievement will be found to be due to the influence and teaching of Gross, Marion Sims, and Parkes, of Chicago, while it remained for Dr. W. T. Bull, of New York, to make the practical application of the knowledge acquired from Dr. Parkes's experiments to a higher use. It was indeed, he said, from a cursory view of these chronological facts that laparotomy in penetrating abdominal wounds and visceral injuries was conceived, developed and perfected in America.

Among the cases mentioned in the paper were a considerable number which had been treated by Dr. Dennis himself. While treating of penetrating stab-wounds he reported two cases of great interest, in both of which he was enabled to present the patients, restored to health, to the members of the Association, who had an opportunity of inspecting the cicatrices left. The first was that of a young man 22 years of age, who was admitted to St. Vincent's Hospital in November, 1885, suffering from two abdominal wounds inflicted with a knife. The intestines, which were perforated, protruded, and there was fæcal extravasation, but not into the peritoneal cavity. The wounded intestine was sewed up with catgut sutures, and after a careful examination had been made for other wounds in it, returned to the cavity, and the external wound closed He remarked, in connection with this case, that the operation of exploratory laparotomy was not called for in this instance, because the intestines protruded, and could be drawn out and sufficiently examined without such an operation, and that a concealed wound would have been much more dangerous

The other case was that of a negro 57 years of age, who was admitted to his wards in St Vincent's Hospital December 20, 1885 He had been stabbed in the umbilical region to the left of the median line, and from the wound, which was one and a half inches in length, protruded a finger-shaped piece of omentum The latter was tightly compressed by the edges of the wound, and was afterwards removed by Dr Dennis Antiseptic gauze was immediately placed over the parts, and three hours after the accident laparotomy was performed under strict antiseptic precautions A vertical incision was first made in the median line, and then a second one, diagonally, which joined the wound to this The viscera were thoroughly examined from the stomach to the inguinal flexure of the colon The small intestines were turned completely out of the body, and omentum and mesentery carefully inspected, but no injuries were found He remarked, by way of comment, that it might be objected that laparotomy was not necessary in this case, but in answer to this he would simply call attention to the fact that this was not known at the time If the intestines *had* been wounded, and laparotomy had *not* been performed, the patient would undoubtedly have died The laparotomy was called for, therefore, in order to find out what the actual condition of affairs was This, he believed, was the first laparotomy which had been made in the case of a stab wound where it was not *known* that the intestines were wounded In another case of the same kind, however, he would now recommend that the wound itself should be enlarged sufficiently to make an examination of the intestines before performing laparotomy proper, as this procedure was a little more conservative The operation in this instance, he wished it to be understood, had not been sudden and unpremeditated, but was the result of much study and experience in connection with other similar cases

In speaking of gunshot wounds he also reported in detail two cases of his own, in both of which laparotomy was performed The first was that of a young man, 23 years of age, who was admitted to the 99th Street Reception Hospital January 2, 1886, suffering from a penetrating wound of the abdomen caused by a 32 calibre pistol ball Severe shock was present, but laparotomy was performed, when it was found that there was the most profuse hæmorrhage in the cavity The examination showed that the principal source of this was the veins in the transverse fissure of the liver There was no wound of the intestines On account of the extreme exhaustion of the patient, twelve ounces of a saline solution were injected into the radial artery This was followed by marked benefit, and the same thing was therefore repeated every four hours, the canula being in the meanwhile retained in the artery At the end of forty eight hours, however, the patient died, and at the autopsy the bullet was found imbedded in the right lobe of the liver, the wound being necessarily a mortal one, on account of the irreparable injury to large blood vessels

The second patient, aged 22, was admitted to the same hospital January 10, 1886, also suffering from a penetrating abdominal wound inflicted by a 32 calibre pistol He had marked shock, and laparotomy was resorted to by Dr Dennis There was fæcal extravasation, and seven openings in the intestine, with one in the mesentery, were found The hæmorrhage was so enormous that, on account of the alarming condition of the patient, the operation had to be abandoned before its completion, and death ensued in forty-eight hours after the injury At the autopsy the cavity of the abdomen was found completely filled with blood, but the sutures which had been made in the intestines rendered them perfectly water-tight

He remarked, in connection with the frightful and uncontrollable hæmorrhage met with in these two cases, that at present the great desideratum in laparotomy for penetrating wounds was some means of arresting hæmorrhage from such large vessels as the vena cava and the iliac and portal veins, and it had occurred to him that this might possibly be accomplished by constriction of the thighs and the waist for a sufficient time to enable the surgeon to secure the bleeding trunks When this point was accomplished, he believed that laparotomy as an operation would meet with the most brilliant success In one case which he referred to, in which laparotomy was not performed, no less than ten perforations of the intestine were found at the autopsy, and the failure to resort to the operation therefore deprived the patient of the only chance of recovery that he had In this instance the existence of perforation was not suspected by the surgeon in charge, so that it forcibly illustrated the advisability of exploratory laparotomy even in comparatively favorable cases

Besides penetrating stab and gunshot wounds of the abdomen, Dr Dennis mentioned a third indication, viz rupture of the intestine A number of cases, illustrated with specimens, were related In two the patients were run over, and in the others injuries of various sorts were received As far as he had been able to discern, only two cases of laparotomy for rupture of the intestine from traumatism had ever been reported In speaking of this class of cases, he referred particularly to emphysema of the tissues and loss of hepatic flatness on percussion as indications of perforation Collapse, he said, was the only constant symptom, but it was not pathognomonic The rupture was always in the small intestine, and the contraction of the muscular fibres usually prevented fæcal extravasation The performance of laparotomy in these cases enlarged the domain of abdominal surgery, although no successful result in it had as yet been reported

In treating of the signs of visceral perforation in general he said, in regard to the matter of shock, that the persistency of the shock was of more significance than its severity, and when it was persistent, it afforded a strong link in the chain of evidence The shock, however, he said, was more apparent than real, being due rather to the sympathetic than to the cerebro spinal system, as was also the case in strangulated hernia He thought its presence should not deter the surgeon from performing laparotomy, and in his own cases he had found that the collapse improved after the opening of the abdomen Shock, however, affords no direct evidence of perforation, and a number of cases were on record in which, although perforation had actually occurred, there was little or no shock present, and death occurred almost without warning

In the discussion which followed, Dr Joseph D Bryant, who opened the recent debate on the same subject in the Surgical Section of the New York Academy of Medicine, called attention to the necessity of discriminating sharply between the two forms of the operation, viz exploratory laparotomy and laparotomy in its entirety The performance of the former he advocated much more frequently than was now the case, believing, as he did, that when done under proper conditions it exposed the patient to no unusual danger The performance of the latter, however, was a much more serious procedure, involving no little skill, patience and expenditure of time, and requiring the most favorable conditions for its success In this connection, he remarked that he would not consider a case of laparotomy in its entirety one in which there were found no injuries of the intestines or other viscera In regard to shock, he agreed with Dr Dennis that it was perfectly justifiable to perform exploratory laparotomy whether it was present or not Whether the exploratory incision was to be made in the median line or not depended on the direction of the violence producing the wound If this was towards the median line, the incision was to be made in the latter, but if the direction was from the median line, it was to be made at the seat of the external wound He spoke also of the very great importance of hæmorrhage, and said that it was absolutely necessary, in performing laparotomy in its entirety, that every bleeding point should be satisfactorily secured Not infrequently very slight oozing became changed to profuse hæmorrhage as soon as the abdominal contents were returned to their places, and the cavity was closed up Experiments which he had made on dogs (shooting them in the abdomen, and then performing laparotomy), had further convinced him of the extreme importance of this element in gunshot wounds of the abdominal cavity

Dr E G Janeway said that the absence of hepatic dulness was a good general guide as to the existence of perforation of the intestines, but there were a certain number of cases which simulated this condition Thus, in a case of typhoid fever under his observation, in which, on account of this symptom, perforation was supposed to have taken place, it was found at the autopsy that the resonance over the hepatic region was not due to perforation, but to the tilting of the liver

Dr H M Briggs also related a case which went to show that loss of hepatic dulness was not an infallible sign of perforation It was one of peritonitis, and the absence of liver dulness being detected, it was naturally supposed that perforation had occurred At the autopsy, however, it was found that this was not the case, but that the intestines had become forced between the liver and the abdominal walls

Dr J W S Gouley said that he believed that the views expressed this evening were sound, and that laparotomy was justifiable when we had reason to believe that the hollow viscera had been injured At the same time, numerous instances were on record in which recovery had taken place under these conditions, and as illustrations he related two cases which had come under his observation during the late war In one instance the patient had a bayonet wound completely through the body, and in the other a pistol shot also passed completely through the body In the latter case the right lobe of the liver, as well as the lower lobe of the right lung, was injured, and bile flowed freely out of both openings with the pus Still, he did not hesitate to say that if he were to deal with such cases to day, he should prepare himself to open the abdomen An interesting case, with recovery, which had been under his care during the war, was also related by the President, Dr Leale

After this instructive scientific session the members adjourned to the library of the State Association, where they enjoyed a pleasant collation and social reunion, which included the passing around of a festal "loving cup," filled with a most delectable concoction, the offering of Dr Flint P B P

TARTAR EMETIC VACCINATION

To THE EDITOR OF THE JOURNAL

Dear Sir —The articles of Drs Woodworth and Ziegler bring the following facts to my recollection As is well known, Prince Bismarck allowed, during the Franco-Prussian war, American surgeons to enter the services of his Government, and appointed the late Dr Krackowitzer and Dr Abraham Jacobi, from New York, a Board of Application, to certify diplomas and the respective ability of applicants, who were requested to send in a certificate of a regular medical practitioner in good standing, as to their previous lives, practice, etc Having been accepted by the Board, I embarked on the Anchor line steamship "Europe" to Glasgow, and from there to the seat of war After our services ended the well-known Dr Knapp, of Berlin, was entrusted by his Government with furnishing us the funds for our return travel, and by-the way, it was almost as hard to get out of the service as to get in, on account of "red tape"

Thinking that I could save some of the money, I started for Hamburg and looked around for a ship, where I could make my way as surgeon I succeeded in finding the "Palmerston," bound for New York We had 700 emigrants on board, no cabin passengers *except me* The steerage was good and comfortable, food and water through all our long tedious journey excellent On the seventh day out I was notified that an old man was sick, and on examining him I found that he had small pox I separated him and the family, two grown daughters, from the rest of the passengers and began to disinfect the ship thoroughly with carbolic acid, sulphur and juniper berries, the latter more for the smell than anything else The infected man was 67 years old, and died within three days The daughters had small pox rather severely, but survived His clothes and everything pertaining to them were thrown overboard, the girls' clothing was steamed in a special oven These three cases were the only ones which occurred on our ship When the passengers heard of it there was quite a panic among them, but after I told them that all possible precautions would be taken by me to prevent the spread of the disease, they quieted down I began now to inspect every passenger, including the crew, and found that about one hundred of the passengers were not vaccinated There was no virus on board, and recollecting of having read somewhere about the identity of the pustules of tartar emetic and small pox pustules, I resolved to try a few inoculations with tartar emetic

I inoculated myself first, and having been re vaccinated when fourteen years old, I could not find any difference between the two From myself I inoculated some babies, and saw that the course was nearly identical with true vaccination, the pustules could not be distinguished from real vaccination pustules It must be remembered that during our services in the Prussian army we had an extended opportunity to see small pox (especially among the French), so that I am well aware of what I write I inoculated all the passengers and had the satisfaction that every vaccination took Our journey, on account of contrary winds, was a tedious and long one, lasting sixty days, though time passed swiftly enough for me When we landed in New York I reported to the Assistant Health Officer of the port, the late Dr Mather, of Albany, the incumbent, Dr Cochran, then being sick We got, without any trouble, a permit to land I am perfectly convinced that by the combined care and cleanliness I extracted from the passengers, and the re-vaccination (or the *morale* of it?) succeeded in staying the ravages of the disease, which might have been very fatal in such a crowded ship as ours

Yours respectfully, CARL PROEGLER, M D

Fort Wayne, Ind , January 24, 1886

ASSOCIATION ITEMS

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo , on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By Laws*, Article 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology —Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky , *Secretary*

Obstetrics and Diseases of Women and Children —Dr S C Gordon, Portland, Me , *Chairman*, Dr J F Y Paine, Galveston, Texas *Secretary*

Surgery and Anatomy —Dr Nicholas Senn, Milwaukee, Wis , *Chairman*, Dr H H Mudd, St Louis, Mo , *Secretary*

State Medicine —Dr John H Rauch, Springfield, Ill , *Chairman*, Dr F E Daniel, Austin, Texas, *Secretary*

Ophthalmology Otology, Laryngology —Dr Eugene Smith, Detroit, Mich , *Chairman*, Dr J F Fulton, St Paul, Minn , *Secretary*

Diseases of Children —Dr W D Haggard, Nashville, Tenn , *Chairman*, Dr W B Lawrence, Batesville, Ark , *Secretary*

Oral and Dental Surgery —Dr John S Marshall, Chicago Ill , *Chairman*, Dr A E Baldwin, Chicago, Ill , *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich —Each Section shall nominate its Chairman and Secretary—all other nominations to be made as now, by the nominating Committee

By Dr I N Quimby, N J —Create a new Section, to be known as the Section on Medical Jurisprudence

WM B ATKINSON, M D ,
Permanent Secretary

1400 Pine St , S W cor Broad, Philadelphia

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, MARCH 6, 1886 No 10

ORIGINAL ARTICLES

THE PRODUCTION AND PREVENTION OF PERINEAL LACERATIONS DURING LABOR, WITH DESCRIPTION OF AN UNRECOGNIZED FORM[1]

BY HENRY T BYFORD, M D ,
SURGEON TO THE WOMAN S HOSPITAL OF CHICAGO

In order to bring my subject before you within the allotted time, it will be necessary for me to confine myself largely to general statements, and to omit many desirable but time consuming details

First let me call attention to the peculiar qualities of the obstetric perineum, which, during the previous eight or nine months of passive congestion, has undergone an astonishing amount of development The muscular tissue has become hypertrophied, the fascia thickened and strengthened, and the loose connective tissue[2] proliferated, until the vaginal and vulval mucous membrane, under the stimulus of labor, roll out at the vulva, in much the same manner as the mucous membrane of the cervix rolls out at the os during prolonged congestion or inflammation about the broad ligaments Towards the end of the first stage of labor in healthy young primaparæ, the vaginal orifice will admit a small hand with but little more inconvenience than, nine months before, it would have admitted two fingers

For the purpose of illustration we may divide the obstetric perineum into two parts the vulval or external, and the vaginal or internal The vulval portion may be said to be bounded above, or anteriorly, by the labia majora and vestibule, below, or externally, by the cutaneous surface between the thighs, the fourchette and the anus, and behind, or internally, by the muscles of the perineum It is composed mainly of skin, mucous membrane, and loose connective tissue, containing fat, vessels etc The internal or vaginal portion may be said to include the remaining structures belonging to what is ordinarily described as the perineum It is composed of the fascia, muscles, ligaments, etc

In labor, when the occiput presses against the perineal body, so as to put the muscles and fascia slightly upon the stretch, we can, by hooking the finger over the fourchette into the fossa navicularis, and pulling outwards just as a pain is ceasing, and the head commencing to recede, demonstrate two perineal rings The external or vulval ring, formed by the edges of the labia majora and fourchette, is elastic, of a well-defined oval shape, and attached to the pubic bone above the clitoris The internal, or vaginal, ring corresponds with the labia minora and edge of the external perineal muscles and fascia It feels like a whip cord stretched from the clitoris down through one of the labia minora, across the lower edge of the vaginal orifice, up through the other to its starting point In figure 1 these rings are represented as separated below by the finger over the fourchette, as already indicated (The vulval and vaginal tissues about the rings are not drawn)

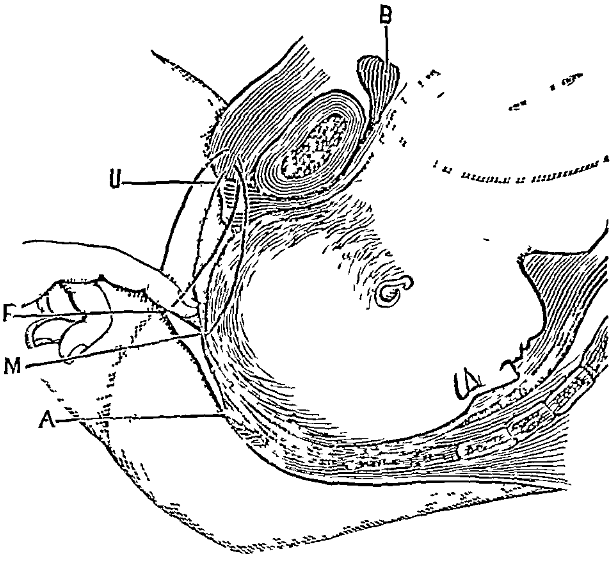


FIGURE 1 —A anus B bladder F fourchette M muscular edge U urethra

When the head recedes so as no longer to put the vaginal orifice on the stretch, the external ring collapses, and the internal ring disappears Later, when the parts bulge and become distended, the internal ring, especially the lower edge, is lost in the flattened or quasi membranous body of the perineum, as in figure 2 But of course it has a definite place, viz , the beginning of the muscular tissue, and extends as far below the fourchette as the length of the antero posterior diameter of the somewhat stretched fossa navicularis, which connects them internally

---

[1] Read before the Chicago Medical Society February 15 1886

The term fascia here is confined to the firmer tissue and not to loose connective tissue to facilitate distinction of parts

Above or external to this vaginal, or internal, ring there is, practically speaking, no muscular tissue, but only skin, mucous membrane, loose connective tissue, fat, vessels, etc

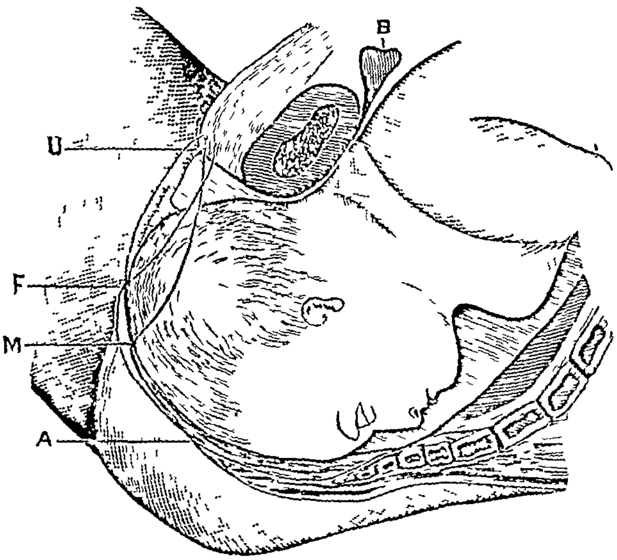


Figure 2 —A anus B bladder F, fourchette M, muscular edge U, urethra (After Schröder)

When the perineum becomes stretched four to five inches antero posteriorly, the lower edges of the rings become still farther separated, and more than an inch of the upper edge of this quasi-membrane is devoid of muscular structure, or firm fascia, as seen in figure 3 It will be noticed that the external ring remains the smaller of the two

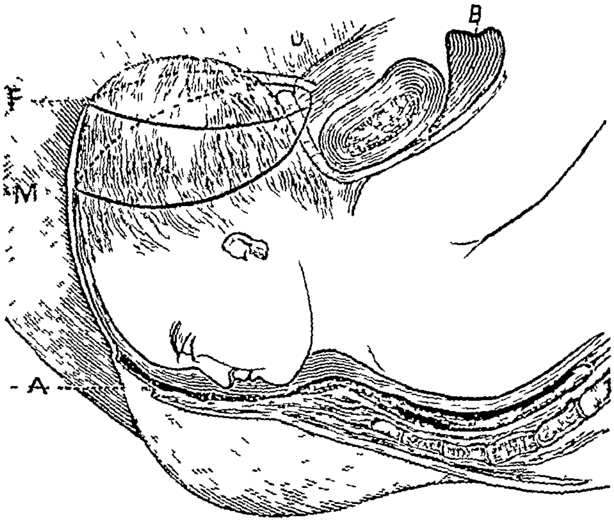


Figure 3 —A anus B, bladder F fourchette M, muscular edge U, urethra (After Schroder)

In determining how the perineum will be affected in labor, we must take into consideration its advance over the pelvic floor, where its direct descent is arrested If the progress of labor at this stage be slow, the liquor amnii, pressing under the chin of the fœtus, will have time to extend the head before the propelling force will have driven the occiput forwards, so as to put the perineum very much upon the stretch When this submental pressure has produced extension as far as it is capable, if the orifice of the parturient canal be sufficiently relaxed or dilated for the apex to engage in it, then the head will easily pass through

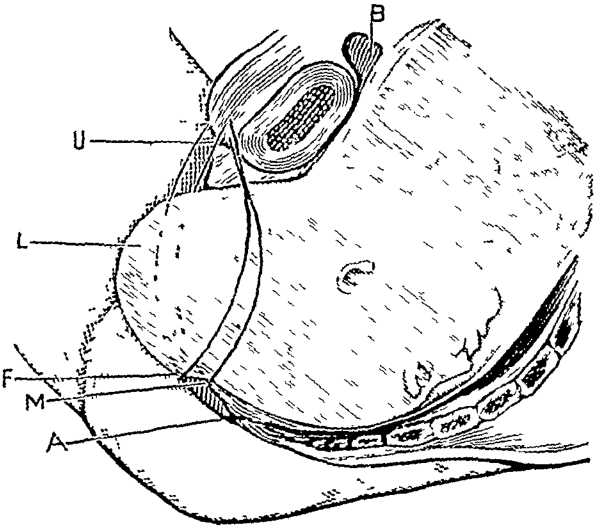


Figure 4 —A, anus B bladder F fourchette L liq amnii M muscular edge U, urethra

it (figure 4) If, however, this orifice be not so relaxed or dilated, then the advancing fœtal head will stretch the perineum from four to five inches antero posteriorly, push the fourchette upwards instead of downwards, and drive the perineal rings before it, instead of dilating them and passing through them, and will cover itself with the flattened perineum, in which the muscular fibres are separated, and the fascia stretched to their limit of resistance (Compare figures 2 and 3 with figure 4) As the forehead passes beyond the coccyx and ligaments, the propelling force acts against this quasi membrane somewhere near the region of the anus, for there is now no directing force left except these attenuated muscles and fascia of the perineum

Now if the pains still be moderate and the tissues unusually strong and elastic, they will finally work up the occiput and draw the edges of the vulvar opening over the head But the difficulty is this If the pains be moderate, their pressure being against the neighborhood of the perineal centre of resistance, is counteracted by the almost direct counter-pressure from that centre, and the retractibility of the over stretched and flattened tissues being but feeble, the head remains almost stationary until, as Barnes expresses it, "the circulation becomes impeded, and, after a time, the tissue half necrosed, becomes as brittle as wet brown paper, yielding under the slightest force" ("Obstetric Medicine and Surgery") Rupture is thus almost certain to result If, on the other hand, the pains be very strong, the resistance at the perineal centre is not powerful enough, and a rupture must occur The lost link in the delivery of the head is thus seen to be the absence of an efficient directing force towards the vulval outlet Or, to express it differently, the head has got beyond the reach of its efficient directing forces, before it is delivered This great mistake of nature, as it thus appears, has led to the invention of numerous devices for supporting or, more properly speaking, managing the perineum

There are five methods of doing this

1 Supplying the directing force, by pressing up the head so as to hold the sub occiput under and against the pubic arch

2 Supplementing the resisting force of the perineal centre by pressing against the advancing head, and thus gaining time for relaxation above

3 Goodell's manœuvre of pulling forward the deeper portions of the perineum, and so diminishing the tension

4 Artificial dilatation

5 A combination or modification of some of these four methods for the purpose of securing the delivery of the head between pains

Almost all lacerations that occur may be described under three heads Lacerations of the vulval perineum, of the vaginal perineum, and compound lacerations, or those which involve both of the structures

Laceration of the Vulval or External Perineum — We may have a rupture of the perineum extending from the external to the internal perineal rings, viz, through the mucous membrane of the fossa navicularis down to the edge of the muscles (from F to M, figure 3), and through a corresponding amount of skin externally After delivery the torn surfaces represent two isosceles triangles, whose bases meet in the median line, and whose apices are the torn corners of the fourchette The tear through the cutaneous surface will in some cases be extended much further, laying open the loose connective tissue down to the external anal sphincter In addition to this lesion we may have a transverse rupture across the posterior portion of the vestibule, just in front of the vaginal orifice, giving to an almost harmless form of laceration an exceedingly ragged and threatening appearance, especially in fat persons

Such lacerations are produced when the perineum is stretched from four to five inches antero-posteriorly, and the internal, or vaginal, ring being larger and extending about an inch and a half lower than the external, or vulval, ring, suddenly slips over the advancing forehead and drags the insufficiently dilated vulval ring so rapidly after it as to tear it The transverse rupture may occur first, and the other afterwards, or efficient management may enable the head, and even the shoulders, to be born without tearing through much, if any, of the skin Forceps, by rapid extraction or faulty shape, rupture these parts in a large percentage of cases in which they are used

The simplest and most rational way of preventing this form of laceration is to stretch the external, or vulval, ring until its lower edge corresponds to the lower edge of the internal, or vaginal, ring, and keep it there Both rings being practically of the same size, will then slip over the head together, and the external perineum be protected behind the internal

Laceration of the Vaginal Perineum —We may have lacerations of the vaginal perineum involving the vaginal mucous membrane only, or the submucous tissues only, or both together

The mucous membrane may give way from friction against the head, or from over distension, yet need not concern us here unless it involve muscles and fascia underneath They are produced by a rapid advance of the head not giving time for normal stretching, or by the failure of a directing force to push the occiput above the upper edge of the muscles and fascia Just as the fascia gives way in the median line, a falling off in the pain, a timely management of the perineum, or a relaxed condition of the outlet, either by checking the too rapid advance or finally directing the occiput through the vulva, allows of delivery without extension of the rupture through the vulva and skin

In this class belongs the variety described by T A Emmet, in which a transverse, or circular, laceration takes place at the internal or vaginal ring, separating "the pelvic fascia just where it is reflected from the sulcus on each side over the muscles at the vaginal outlet" (*Medical News*, January 23, 1886) When this "transverse tear takes place, and the head continues to advance, the connective tissue between these muscles separates, and the muscles themselves are drawn aside, as a curtain, with often not the slightest injury to the skin in front, or the mucous coat of the vaginal canal" (Op cit)

If, however, the vaginal mucous membrane be sufficiently loose and voluminous to remain intact during the separation of fascia along the median line, or the rending of muscle laterally, and the progress of the occiput be then checked and guided by a proper directing force, we may have a purely sub mucous rupture But we may also have a descent of the head which will not be rapid enough to thus tear whole muscles apart, yet so rapid that, when the perineum is stretched to its utmost limit, and the line of advance of the head is pointing towards the perineal centre of resistance, the muscles and fascia will become over-distended, and the fibres and tissues give way all through the membranous cap without implicating either the vaginal or cutaneous surfaces Such is not a very uncommon occurrence in malpresentations, and in forward rotations of the occiput The main evidence of this form of diffuse laceration is a soft and dilated condition of the parts, persisting after several hours have elapsed, when we expect at least some evidence of returning tonicity The condition is similar to that of the anus after one of those rapid dilatations from which the sphincter never recovers its former contractibility

Sometimes the posterior tissues are thus lacerated, especially along the curve of the advancing forehead, or of the forward rotating occiput, without any injury to muscles about the vaginal outlet I have known the sphincter ani, in such cases, to require many weeks to recover its power to retain thin fluids The expulsive power of the lower rectum has been generally lost, at the same time Sometimes, on the other hand, the muscles about the vaginal orifice will be the only ones to suffer While these diffuse submucous lacerations, whether general or regional, have not been recognized as lacerations, their effects have been noted They have been called "over distension of the entire pelvic floor" (Mundé), "overstretched muscles and fascia" (Emmet, Polk), "subinvolution of the uterus and vagina" (Murray, Polk, Cleveland, and others), etc

In order to bring the ends of broken fibres together, the perineal body should be gathered up by two or three stitches taken from the cutaneous surface, and avoiding puncture of the vaginal and rectal mucous membranes Otherwise normal involution and contraction may never occur, and permanent displacements of the pelvic viscera will result The perineal tissue may then be likened to a worn out elastic suspender, in which the rubber threads are broken and the elasticity gone Its length may be reduced by removing a piece and sewing the ends together, but its elasticity can never be restored without putting new rubber into it A fortunate circumstance in connection with such cases is that in some portion of the tissues enough unruptured muscular fibres, or uninjured fascia, may be left to act with the skin as a brace to the rest, and, with the aid of hot douches at 115° to 120° F , and rest in bed, may restore a fair degree of usefulness to the perineum

Care, however, must be taken not to confound this form of laceration with that condition of the parts in old primiparæ, in which there is but little or no rupture of muscular fibre, or of the superficies, but extensive and severe bruising, and a subsequent delay in contraction until the preventing inflammatory induration abates Contraction may not commence for several, days and may not be completed for a couple of weeks In such cases the parts are of course very much discolored and benumbed The perineum seems like a thick piece of soaked or softened leather, and retains a somewhat wrinkled cap shape for many hours The introduction of stitches to draw the parts, thus injured, into shape is not only difficult, but decidedly harmful

Laceration of the vaginal perineum is prevented by securing a slow advance of the head over the deeper and posterior portions, and by directing the occiput upwards, under the pubic arch The proper way to secure this directing force is to dilate the vulval and vaginal rings, so that the occiput will engage in them before the forehead has got beyond the ligamentous perineum Then the lower edges of the two rings become a directing power and lift the occiput up under the symphysis through the already dilated outlet This descent of the lower edge of the rings brings the tissues together in a solid mass near the anus, and renders them capable of meeting any ordinary propelling force without danger of rupturing The meddlesome and unnatural practice of using hot vaginal douches, for relaxing the perineum before delivery, cannot be too strongly condemned They wash out the natural secretions and leave a comparatively dry and irritable mucous membrane, thus increasing friction and danger, they either contract the tissues or lessen their tonicity, seldom relaxing without weakening, as does a normal advance and recession of the ovum, they can with difficulty be used without increasing the discomfort and anxiety of the patient, they are less efficient for the relief of irritability of the parts than hot applications to the abdomen and external perineum, or hot hip baths

Compound Lacerations —Of the remaining, class of perineal lacerations, or those in which both the vulval and vaginal portions are concerned, the simplest form is that in which the superficial muscular fibres give way in the median line along with the fourchette This occurs with a rapid delivery of the head, as in forceps cases, and especially during great bulging of the perineum, when the posterior portions have been dilated, and the last few insufficiently dilated fibres about the vaginal ring unable to stand the stress of a strong pain The advancing forehead may extend the laceration down to or through the sphincter ani Emmett's T shaped laceration may result from this kind of strain, and then involve the vulval portions Or the laceration may commence in the vagina, below the vaginal orifice, and then be completed externally by the advancing head or shoulders Or if pains be strong, and particularly if the sacrum and coccyx be insufficiently curved, the head may push on through the perineum at the sphincter of the anus, and leave an upper portion intact Or the head may rapidly distend the perineum above the anal sphincter until a central rupture will occur, and then be made to pass through the vulval orifice without doing any further injury But the head and body of a child can hardly pass through a central median rupture without involving either the sphincter below or the septum above Finally, we may have a diffuse submucous laceration, becoming complicated, later, with other varieties

These, though by no means all, may, I think, be taken as a representation of the usual forms, and methods of occurrence, of perineal lacerations Prevention, applied to them as a class would, according to the observations presented, involve two principles

1 To make the advance of the head slow enough to allow the parts to dilate to their utmost without tearing

2 To secure sufficient dilatation or relaxation of the vulval and vaginal orifices to bring their axes to correspond with the axis of the parturient canal, so as to enable the head, as it gets beyond the influence of uterine and pelvic directing forces (the amniotic fluid, the pubes, sacrum, coccyx, ligamentous perineum, etc), to find a directing force in the vulval and vaginal orifices or rings

In endeavoring to diminish the rapidity of the progress of the head, it is well to take two points into consideration 1 That uterine action becomes more efficient, as labor advances, on account of the increased length and frequency, rather than the increased force, of the contractions (Schatz) 2 That when the head is capped by the membranous perineum, and therefore is not delivered until it has passed entirely beyond the bony pelvis (figure 3), the uterine contractions have at last almost no direct effect upon its advance, and the abdominal pressure or straining of the mother becomes the chief propelling force (Schroder).

Hence, if we wish to diminish the propelling power during the passage of the head through the pelvis, we may often with advantage give remedies which will act between the pains to diminish their frequency, such as opium, chloral, etc., yet without very much affecting their force. Chloroform, given only during pains, diminishes their force without much affecting their frequency. Later, when the abdominal muscles are the prime forces, we may regulate the advance of the head by controlling them.

The prevalent practice of accelerating the progress of labor until the head greatly distends the perineum, and then using counter pressure to keep the vulva from being lacerated, is to deliberately injure the pelvic floor, and then court rupture of the uterus.

Perhaps the best means of securing a normally slow advance of the head is to preserve the pouch of membranes. This may be done by keeping the patient quiet, discouraging all violent bearing down efforts, making but few digital examinations between, and none at all during pains.

Artificial dilatation of the vulval and vaginal orifices has been advocated by Ernest Trestrail (1875), Mossman (1880), Alex. Duke (1883), and Alfred Carr (1883). Latterly, Professor Leon Dumas has developed a very efficient method of digital dilatation of these orifices, and has practiced it with gratifying results (*Montpellier Medical*, August, 1883,—"Dilatation Præ fœtale de la Vulve"). In my own practice I utilize the pouch of membranes for this purpose also. The vulval and vaginal orifices, being relaxed and everted, are, in most normal cases, less resisting to the pouch than was the os uteri. After being dilated by the pouch, they allow of the rapid passage of the head, thus shortening, and greatly lessening, the usual anguish of the last moments of labor, and reversing the fashionable mode of hurrying up the second stage to save pain, and then checking the advancing head at the final period of severest suffering.

A comparison of figures 3 and 4 will show that when the bag of waters persists, the perineal rings are better prepared for the delivery of the head while the forehead is still on the sacrum, than they are after the chin has passed the coccyx, in those cases where the membranes have been ruptured at the end of the first stage. Besides this, the head has a third less distance to travel during the second stage until born, and thus takes a third less time at a given rate of advance.

In thus advocating a bringing down of the fourchette, I only seek for an imitation, in all cases, of the mechanism that sometimes occurs in young primiparæ, and often in multiparæ, where the vulval and vaginal outlets are normally, and therefore greatly, relaxed, and where neither pouch presents nor fingers interfere. There is much less work either for the pouch, if left alone, or the fingers, if *properly* used, than is generally supposed. But that little work is often of prime importance.

3100 Forest Ave.

A PLEA IN BEHALF OF A NAVAL HOSPITAL FOR INEBRIATES[1]

BY FREDERICK HORNER, M.D.,

OF MARSHALL, VIRGINIA.

In this paper it is proposed to discuss: *First*, the history and origin of hospitals for inebriates; *Secondly*, the presentation of facts to prove that inebriety is a disease; *Thirdly*, the value and results of institutional treatment; and *Fourthly*, the present necessity of a special hospital for the treatment of inebriates of the Navy.

First.—Dr. T. D. Crothers, in a paper read before the London Branch of the British Medical Association, states that "the earliest organized effort in modern times to prevent inebriety was a temperance society which began in New York State in 1828." I may add that two years previously, in 1826, a like organization was started in Boston. The object of these societies was to aid others in pledging themselves to abstain from the use of all intoxicants, and to help each other to carry out this resolution. The Washington societies began in 1840; this movement was greatly promoted by the labors of Father Mathew, an Irish prelate, by Mr. Gough, and Neal Dow, who gave to us the Maine liquor law. Subsequently friends and Sons of Temperance carried on this great work, and since the late civil war the Gospel Temperance and Good Templar societies, perfecting the system which at present embraces the social, moral and religious elements of man's nature. The need is for these classes fully to comprehend the fact that inebriety is a true disease—a widespread epidemic—and to be successfully treated comes within the domain of preventive medicine, and to be relieved and cured must be submitted to the treatment of special and fully enlightened physicians. In the exhaustive address of Dr. Crothers, he adds that "the first period, the rational or scientific epoch, began in 1790, when Dr. Rush, a distinguished physician of Philadelphia, urged that inebriety was a disease and should be studied as such; a physiological and not a moral condition. In Europe this theory was taken up and made the subject of several papers which have become historical."

In 1852, Dr. J. Edward Turner projected the first asylum for the medical care and treatment of inebriates. A new era dawned when the labors of this great philanthropist culminated in the opening of the New York State Hospital. During its brief existence of fourteen years 2,344 inebriates were treated. This enterprise attracted the attention of the world, and clearly demonstrated the disease of inebriety and its curability. In 1859 a similar hospital was begun in Boston, now known as the famous Washingtonian Home, with Dr. Albert Day as Superintendent. During the twenty-five years of its existence almost 8,000 patients have been cared for, "some of whom are now heard from, now honored citizens and performing well the duties of life." During fifteen years the Binghamton Asylum received 7,000 patients for treatment, and from the study of over 2,000 cases five years after the period of treatment in the asylum, sixty-two per centum were found to be temperate and sober There are thirty asylums for the treatment of inebriates in America Some of them are small and empirical in their theories, and many of them are broadly scientific in plans and appliances, one of the largest is for women, and when completed will contain 300 rooms The late Dr J Marion Sims was President of this institution, which is located in Connecticut All of these asylums, remarks Dr Crothers in the Report from which these details are quoted, "suffer from want of legal aid to restrain fully such cases, though everywhere these asylums are building up public sentiment in the direction of physical means and methods of treatment The first effort to study the facts as they appeared from a scientific inquiry began in 1870 in the organization of the American Association for the Cure of Inebriates This Association is composed of physicians who accept the general principle that inebriety is a disease, and is curable as other diseases are To this end asylums are essential, or special quarantine stations where the victim can be housed and receive exact physical care, until the causes are removed and the patient restored—the victim himself being held responsible, like the small pox patient, to use every means for recovering "

---

[1] Read before the Naval Medical Society.

Legal enactments in Europe and in this country have been passed, giving full control over the inebriate—the most advanced of which are in the State of Connecticut and in New South Wales Of the thirty asylums in the United States established during the past quarter of a century, twenty six survive The necessity of hospital treatment for inebriety is thus established beyond all question Public sentiment is enlightened, and under the inspiration of a Christian civilization over a thousand temperance coffee and lodging rooms and Sailors' Homes where no liquor is sold have been opened in this country By these efforts, they recognize the value of physical aid, the necessity of food and rest in order to restore the diseased will The Women's Christian Union maintains most of these places In these Homes, the value of a single day's restraint, with good food and quiet rest, is seen in the help to overcome the diseased appetite They are literally the first efforts of the masses to treat inebriety by rational means, and the beginning of a great movement to establish hospitals for all

Secondly the presentation of facts to prove that inebriety is a disease—The writings of the ancient Greeks and Romans sustain this proposition Herodotus wrote that "drunkenness showed that both the body and soul were sick, and had destroyed many kings and noble people " The Greeks enacted laws forbidding women to use wine In the writings of the thirteenth century drunkenness and madness were mentioned as synonymous terms In 1747 Condillac, a French author, declared that the State should recognize and provide means for its treatment, "since the impulse to drink was, like insanity, an affection of the brain " In 1790, Dr Benjamin Rush sustained this theory by a long train of reasoning He divided the disease into acute and chronic forms, giving many of the causes, among which heredity was prominent, and urged that special measures be taken in the treatment, and in a hospital for the purpose In 1802, Dr Cabanis, of Paris, wrote "that inebriety, like insanity, was a distinct form of mental disorder needing medical care," an opinion sustained also by Prof Platner, of Leipzig, who claimed that the insane impulse of the drunkard ought to be studied by the light of science Esquirol, in 1818, described a condition of the nervous system in which inebriety was sure to follow

To two eminent American physicians, Albert Day and T D Crothers, may be awarded the credit of establishing beyond all questioning the facts to prove that inebriety is a disease In a paper, "Inebriety and its Cure," read by Dr Day before the Suffolk District Society, he says Dipsomania is a term applied to a peculiar form of insanity, designating that uncontrollable impulse towards the use of intoxicating liquors which is felt by some persons at certain periods, and contradistinguished from the craving thirst of the daily moderate drinker *Alcoholism* is the name of all diseases in any way found to be due to the use of alcohol, and applies to the collective symptoms of a disordered condition of the mental, moral and sensory functions of the nervous system, these symptoms, according to Dr Magnus Huss, of Stockholm, in his work on "Alcoholism," may assume a chronic form, and without being immediately connected with any organic manifestations of the central or peripheric portions of the nervous system which may be detected during life or discovered after death by ocular inspection Dr Crothers claims that "all the symptoms of inebriety are incidental to the toxic effects of alcohol, marked by psychical and pathological changes, and the inability of the patient to cease the use of spirits is because of the nerve degeneration which has occurred, then follow functional and organic disturbances From hereditary causes there may be also further proofs of a defective organism, that inebriety is an inherited disease can be clearly proved The poorer classes, from lack of suitable nutriment, resort to stimulants, while the more wealthy from continuous excess develop nutrient degenerations The over mental work and sedentary habits of literary men of unstable mental organization, disordered emotional faculties and unbalanced nutritive functions, constituting the inebriate diathesis, sometimes prove to be causes affecting injuriously the offspring and predisposing to inebriety The organic degenerations are marked by anæmia, neuralgia, and a sudden insane impulse for intoxicants

As inebriety comes on by degrees, the physical condition of the victims of the disease is of great significance The shock arising from injury of the brain or spinal cord by a blow or fall, *coup de soleil*, railroad accident, from the effects of lightning, or reverse of circumstances followed by neurasthenia and ill health, if treated with alcohol, may develop the symptoms of acute and even chronic inebriety The religious revivalist, the disappointed student, and the business man who fails, are examples of the classes of mankind who become victims of this disease—a disease traceable often to conditions of exhaustion of the brain Dyspepsia, which disturbs the nutritive functions of the body, is a predisposing cause, and induces a condition happily designated by that profound expounder of this subject, Dr Crothers, "psychical traumatism," in which the brain and nervous system have lost some power of restoration by which their integrity is preserved, and take on conditions favorable to the development of inebriety At first alcohol is used for its sedative property, second, to relieve the pain of neuralgia or gastralgia Hence the world wide resort to "bitters," so lauded by empirics

Among the predisposing causes may be cited bad influences in the early training of the young Like many other diseases, it is more prevalent at certain periods of life—that of puberty is full of danger It appears, according to Dr Mason's statistics of 250 cases, most frequently in ages from 15 to 25 and from 30 to 35 years The craving or desire for spirits is periodical with some individuals A seaman, Noah like, thus suffers when his cruise or voyage ends this class sometimes lose all consciousness of right and wrong and have no control over the actions of the mind or body, and become insane or criminal Firemen and night workers soon become inebriates Dr Day, in his Report of the Washingtonian Home, 1884, says "the inebriated man appears to act the part of one deranged in intellect, body and mind alike suffer, and a hideous list of nervous failings prey upon his shattered frame and prove fatal in the end" He adds that "the public must look to the medical profession for proofs that inebriety is a disease and is largely the outcome of physical injury It begets various forms of insanity, transmits to progeny a defective brain and an ever-present anæsthesia, wherein the coordinating structures are impaired in substance or in function by the intervention of hyperplasia, excessive cell formation of the interstitial tissue, the unoccupied spaces between the molecules A brain so injured ministers to moral incapacity, ending in a morally depraved character Criminals by birth, though they may never drink, they are thieves and perjurers, and, alas, it may be asserted that the whole race of man now, with few exceptions, by the drinking habit and the abuse of the liquor traffic, is tainted with alcoholic disease from which come poverty, disease, crime, and the most burdensome taxation Inebriety is a foul disease, more destructive to human life than all other diseases combined, enslaving mankind in bondage second only to what Satan achieved for Adam's race in Eden" Dr Frederick C Shattuck says "the high mortality of acute pneumonia in the intemperate is no new observation, but the facts would seem to show that alcoholic excess is not only an important factor in determining the issue of this disease, but that it is often of itself the actual cause of it Thus it is that pneumonia owning this origin is at all ages the most fatal form of the disease known to us"

Professor Christison, of Edinburgh, declares "I recognize certain diseases which originate in the vice of drunkenness alone, which are delirium tremens, cirrhosis of the liver, many cases of Bright's disease of the kidneys, and the dipsomania of insane drunkenness, and also other diseases in regard to which excess in intoxicants acts as a powerful predisposing cause, such as gout, gravel, aneurism, apoplexy, epilepso, cystitis, erysipelas, spreading cellular inflammation, tendencies of wounds and sores to gangrene, and inability to resist the diseases at large" In examples of epidemic continued fevers he had known but a single case of an intemperate man of 40 and upwards to recover Four fifths of his cases of Bright's disease were produced by alcohol All practicing physicians who have treated epidemic cholera or yellow fever know that the maximum mortality occurs to the intemperate classes of society

Dr C Murchison, the author of an excellent treatise on "Continued Fevers in Great Britain," says "A single act of intoxication or debauch predisposes to typhus," adding that there is no greater error than to imagine that a liberal allowance of alcoholic stimulants fortifies the system against contagious diseases In Dr Murchison's "Lectures on Functional Diseases of the Liver" before the Royal College of Physicians in London, it is asserted that the prevalence of beer and spirit drinking and consequent liver clogging accounts for the widespread use of countless forms of patent medicines These are all of a purgative character, and give temporary relief to the overwrought liver, but help to shorten life

Dr Norman Kerr, in the discussion of diseases due to the abuse of alcohol, states that probably sixty per centum of the cases of erysipelas were occasioned by it The use of beer produces a species of degeneration of all the organism—fatty deposits, diminished circulation, congestion of the viscera and local inflammation of both the liver and kidneys Intellectually sometimes a stupor amounting to paralysis, and arrest of the reason, changing all the higher faculties into mere animalism, selfish and sluggish, varied only by paroxysms of anger that are brutal Its constant use gives the body no recuperation, but steadily lowers the vital forces It has been remarked that the most dangerous class of ruffians in our large cities are beer drinkers Hence the conclusion that inebriety leads to criminal acts is undoubtedly true

Dr B W Richardson said before the Edinburgh Society of Arts "Alcohol, instead of raising, lowers the temperature of the body After a drunken stupor it takes three days to restore the natural warmth The development of fat from its use is simply due to structural degeneration of the vital organs Hence alcohol is not in a proper sense a food It accelerates the action of the heart from 100,000 to 125,000, followed by a proportionate weakness The heart becomes enlarged and its valves disordered, and the brain, by the increased flow of blood to it, is rendered for the time more active and is succeeded by greater feebleness, which demands the repetition of the stimulus Among the effects of deterioration in those who drink moderately are various neuralgic pains, the worst form of indigestion, and wakefulness At a later stage of drunkenness, not a single organ of the body escapes disorganization of its vital structure, though heredity or other conditions may cause a seeming concentration on a particular organ—the liver, the kidney, the lungs, the heart, brain or spinal cord." This author concludes that if any form of alcohol do really for the moment cheer the weary and impart a flush of transient pleasure to one who craves for mirth, its influence, an infinitesimal advantage, is obtained by the side often of an infinity of evil for which there is no compensation, if a cure. The proofs thus furnished by the writings of the most eminent medical authorities, that inebriety is a disease, and also productive of other diseases, may be summed up in the utterances of Dr. Joseph Parish, that it cannot be denied that, 1, it is a disease, and with specific symptoms; 2, there is a condition of the nervous system with which some men are born that predisposes them to alcoholic indulgence. Hence the inebriate must be treated as other diseased human beings, and not ostracized by society and branded as a criminal, and be driven an outcast beyond the pale of human sympathy. In his behalf the laws of hygiene must be taught in their highest sense, and a curative and humane treatment be adopted.

These opinions are also ably maintained by Dr. Albert Day, who declares that "the inheritance of inebriety follows the same laws as other nervous diseases, a predisposing cause being a civilization at the present day demanding a great expenditure of nerve force and brain work, while among the exciting causes are alcohol, opiates and chloral, which, by acting in a secondary manner upon a low nerve power, produce the diseased condition known as dipsomania. The disease never exhibits itself till alcohol has been consumed, resulting in the poison of the blood and the arrest of the healthy operation of the nervous system. It attacks the higher faculties, dethrones the reason, retrogrades its victim to a level with the brute, and in its chronic form is inducive of mania a potu, epilepsy and insanity. If cholera and other plagues have slain their thousands, inebriety annually destroys its ten thousands. The whole subject embraced within this division of my topic comes within the domain of *preventive medicine* as clearly as any single one of the zymotic diseases, and so soon as the medical profession will direct their attention to its recognition, prevention and cure, will mankind be freed from the most dire scourge which can afflict the human race.

Thirdly. The value and results of institutional treatment.—On this part of my subject I regard the testimony of Dr. Albert Day as furnishing an unanswerable argument in favor of the value and success of institutional treatment, as tried during the past twenty-eight years at the Washingtonian Home. Dr. Day, in his Report for 1885, says that one of the earliest results of hospital treatment was the discovery that inebriety is a disease rather than a vice proceeding from the creation of an artificial appetite, and it never exhibits itself until alcohol has been consumed. Dr. Day has treated over 10,000 cases, and by statistics demonstrates that asylums, properly conducted, are an actual saving to the State in dollars and cents. The instances of relapses have been less than is generally supposed. This method has at least proved to be the best yet discovered to ensure a complete and permanent cure for reforming the evil. The victim is thereby withdrawn from associations of temptation, is received with kindness, and having first expelled the evil within him, is reawakened to self respect, and after a time is restored to the community with a sound mind in a sound body, and becomes again an active worker in the great human hive—useful to himself and a source of happiness to his friends. This eminent physician and philanthropist adds that in the treatment of his patients he aims to promote in them true virtue, total abstinence and true piety, to stimulate their own exertions for a better knowledge of God and His laws, and for a determined self control. In this era of practical atheism and morbid materialism among a certain class of physicians, the sentiment expressive of faith in God and His word which Dr. Day commends to his patients is deserving of praise, since the true physician has ever to remember that he is only the honored instrument of a superior power in relieving maladies of the body or mind; and, after all, it is only "God who healeth our diseases." It can readily be proved that all attempts to treat successfully and to cure inebriety in civil practice or on board ship have failed. While due prominence has already been given in this paper to the treatment of the inebriate in an asylum, and full concession made to the wisdom of those who have advocated institutional treatment and yet deny that there is any vice connected with the disease, which is called inebriety, we are instructed to the contrary plainly by the teachings of the Bible. This sacred book declares that drunkenness is a sin so offensive to the Diety that by Hebrew law the victim was stoned to death, and under the new testament, or Gospel, dispensation, such an offender will at death be deprived of the joys of Heaven. Hence, as Christian physicians bearing the mantle of the great Physician who alone delegates to us the wisdom and force to heal the drunkard's bodily ailment, we can, also, present to his heart and conscience the consolations of the Christian religion. Thereby we strive to lift him to a higher life and remind him of the solemn warning which the Bible conveys, that "no drunkard shall enter the kingdom of heaven."

Fourthly. The present necessity of a Special Hospital for the treatment of inebriates of the Navy.—In a late letter received from Dr. Albert Day, he says: "It seems to me fortunate that you are to present the subject of institutional treatment for the unfortunate victims of inebriety in our Army and Navy. A large number of men have come under my care during the past thirty years, and in all respects from inebriety they are the best and most intelligent in the service. Should the Government establish such an institution we should hear less of insubordination, disgraceful conduct and self destruction. Under proper asylum treatment a large percentage of these men could be saved to the service and their families." He adds: 'I have been engaged in this work nearly thirty years and I am approaching the end. I can truly say that I am more satisfied with the results of my life's labor than I at the first anticipated But the work has been a success I often meet persons rescued from the most degraded form of intemperance, they are now worthy and honored citizens, who can date their cure back to twenty or more years "

It required three quarters of a century before naval authorities established a hospital for the insane of the public service The suggestion first made by that great philanthropist, Miss Dix, was successfully carried into effect in 1858 by Dr Charles H Nichols There can be no question from the facts presented in this paper, that for nearly thirty years the experiment of hospitals for inebriates in nearly every State in the Union has been successfully demonstrated in this country as well as in Europe The Naval Surgeon should, in the practice of *preventive medicine*, be convinced that the disease inebriety, occurring in the line of duty to officers or seamen, should have the benefit of special treatment in a hospital instituted for this special disease The Annual Report of the Surgeon-General of the Navy notices a certain number of cases of acute and chronic alcoholism, and of delirium tremens, say one fifth, rightly included under the head of "Poisons," as occurring in the various squadrons at home and abroad, at the navy yards and in naval hospitals Among this number there must be cases discharged uncured In the North Atlantic Squadron, under the head of "Poisons," which includes acute alcoholism, *vulnus venatum*, *colica pictonum*, etc , the ratio per 1000 of this class is set down in the Report as 10 In the European Squadron, under the head of "Poisons," 17 per 1000 is the number given, 13 admitted, 12 discharged and 1 invalided The Report concerning the sanitary condition of the various hospitals also furnishes examples of acute and chronic alcoholism and ebriositas, 31 cases admitted, 30 discharged, and 1 invalided Such facts are suggestive that, what ever precautions may be adopted by the medical staff of the Navy to eliminate inebriety from the public service, the experiment has failed The attempt at treatment on board ship, as in civil practice has also failed, but not so has institutional treatment

Already the naval surgeon has won an advanced position in the departments of sanitary science and of preventive medicine, indeed, he is fully qualified to discharge all professional duties as a surgeon and physician according to all the light which medical and surgical science has reflected upon the human mind Hence the query, will he not be derelict to fail to apply the most enlightened medical and institutional treatment to an inebriate on board ship, as well as in a special hospital, rather than to furnish testimony before a court of inquiry or a court martial as a witness, thereby ensuring the summary disgrace or expulsion from the public service for drunkenness of an efficient officer or a valuable seaman? The latter cruel and, in many instances, unjust method was practiced prior to 1859, though it can not be sanctioned at present In one case, of which the writer was cognizant, the greatest wrong was inflicted upon a talented and efficient naval officer, whose valuable services saved a sloop of-war, with her crew, from shipwreck His exposure to a tropical sun, in an open boat, to discover a safe channel for the escape of the vessel, was of course the occasion of great mental strain On returning to the United States subsequently, can there be any surprise that this officer in an evil hour was tempted to acts of intemperance? And yet the decision of a court martial convicted him of drunkenness, and sent him into the world a disgraced and ruined man.

Finally, the suggestion may be ventured that, at least, one of the various Naval Hospitals now appropriated for the treatment of the sick and wounded might be judiciously set apart for the special care, relief and cure of the unfortunate victims of inebriety of the American Naval Service

A NEW CLOTHING CASE FOR THE SOLDIER

BY W THORNTON PARKER, M D ,

OF NEWPORT R I LATE ASSISTANT SURGEON U S ARMY

The science of medicine has for its purpose not only the cure of disease, but, infinitely more important, the prevention of sickness and of suffering Students of the medical profession—and, as long as we are faithful to our calling, we who are known as medical doctors must also be students—investigate matters pertaining to prevention and cure in every direction To one the ability is given to contribute books of instruction, to another records for reference, to others instruments for operative surgery, instruments for diagnosis, appliances for deformities, apparatus for the relief of the injured, appliances to protect against deadly pestilence, and the simpler articles to aid in general hygiene There are many workers, and much material offered for inspection which must prove worthless and useless From the great gathering of the efforts of thousands some things prove of value and are accepted and are permitted to do useful and honorable service All cannot be utilized Some things must be rejected, but the faithful worker brings his offering to the profession and patiently waits the verdict of his peers and of his seniors

The experience which was won by the dreadful War of the Rebellion in this country has had its good effects all over the world The lessons learned by our medical officers and sanitarians have been made use of in every war since, and the valuable records are stored ready for future instruction The study of military hygiene is of the utmost importance The preservation of the health of the soldier, with a view to increasing his effectiveness and diminish the causes which weaken, injure and invalid him, are worthy of the most careful study, investigation and experiment The poetical and romantic in uniform and ceremony must fall before the searching analysis of the practical question All that relates to the soldier, his food, clothing, camp, arms, recreations, duties, physical condition, morality, all these and many more must interest those who have the soldier's real and lasting welfare at heart The soldier, to be effective as a fighting man, must be able to go on the battle-field in a condition of strength and general "smartness" The valuable property of the soldier, called "*esprit de corps*," must suffer very decidedly when the body is exhausted and when the "mob action" is seen on every side

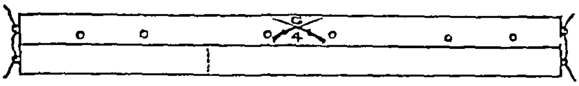
It is the purpose of this paper to treat of only one detail in the soldier's make up, and although that may seem to the general observer unimportant, a more important subject could hardly be considered It was the experience of many army officers, during the War of the Rebellion in the United States, that soldiers, although provided with the best knapsacks which could be manufactured, invariably threw them away upon long marches, together with the clothing contained in them, rather than endure the fearful physical suffering which resulted from carrying them Those who were determined to save some extra clothing did so by wrapping it up in the rolled blanket or overcoat, which they wore over the left shoulder During the Franco Prussian war many regiments transported their extras wrapped in blankets or overcoats and worn swung over the left shoulder The ends of the overcoat or blanket were secured by straps or cords at the right side The right arm and shoulder would therefore remain free for the carrying of the rifle, and easy movement for loading, aiming, firing, charging, and other exercises of the soldier could all be promptly executed The different forms of knapsacks which I have examined, although remarkably similar in appearance in the German, Austrian French, English, Dutch, Italian, Swiss and American armies, are clumsy, heavy, and too fatiguing for the soldier's use in peace, even, much less useful in time of war The necessity for the easy transportation of the soldier's kit by the soldier is often of the greatest importance when in actual warfare and liably to long marches, especially when the quartermaster's train has failed, or when the rapid movement of armies is necessary, without the aid of wagons and horses

The knapsack is especially undesirable because its straps draw heavily against the muscles used in respiration The tugging of pack impedes the act of respiration very greatly, especially when the body is fatigued The oppression caused by the weight of the knapsack, and its interference with normal breathing, is so great that I have seen soldiers faint away and even fall in ranks at Sunday morning inspection, after carrying the knapsack only a short time The distress from the weight of the knapsack often causes a large per cent of stragglers and sick men before the troops even reach the battle field An army is thereby deprived of many men of excellent courage and intelligence who would, by their presence, have aided much in action towards the general success, but whose physical resources were not equal to the dreadful pack on their backs The pressure and contact of the knapsack heats and weakens that portion of the body against which it rests, and after reaching camp or a halt its removal exposes the soldier to additional chances of taking cold

Any one who has witnessed the departure of troops for the war, in what is called *heavy* marching order, must have noticed countless men already nearly tired out, struggling to keep up appearances and bear, in a soldierly way, their "pack" It was an easy matter to estimate how many, from the weight of the knapsack, must soon break down and become useless as fighting men

To remedy some of the defects and dangers which we have been considering, I have devised a "Marching Clothing Case," which very many of the officers of the United States Army, and also officers of the Army of the Union during the war, have examined and highly approved of The Newport Medical Society, at the regular monthly meeting held December 2d, formally approved of this Case, and have recommended it to all army boards for use, instead of the knapsack

The Case is made of light canvas or waterproof cloth, and when completed it weighs but a fraction of the weight of the average knapsack It is manufactured as follows



A strip of cloth four feet long, or four feet six inches is a better length, by sixteen inches wide, is folded to make a pocket six or eight inches deep This is done by making the covering flap lengthwise, and dividing it into three pockets by a few stitches across at a third of its length, making three equal divisions Six buttons hold the flap in place Loops at either end enable the soldier to wear it secured at the ends without its being rolled in blanket or overcoat This Case will hold one pair of drawers, two flannel shirts, two pairs of stockings, towels and other extra pieces of clothing, and the "soldier's book"

It is useful in that it can be worn for days without giving fatigue, and the weight is so evenly distributed that the soldier does not suffer from carrying it or feel disposed to throw it away Upon reaching camp the blanket can be unrolled and the Case hung up or thrown in the corner, the clothing remaining in the Case clean and undisturbed When the clothing is rolled loosely in the blanket, upon reaching camp the blanket is needed and the contents are likely to be scattered about the tent and soiled or ruined with mud and rain

This Clothing Case does away with the necessity for knapsack or clothing bag, and can be manufactured easily and quickly, and at a trifling expense compared with the cost for the manufacture of knapsacks No clothing case could be more easily carried than one suspended from the shoulder It can be used at all times, even in action, and would then offer considerable protection of the vital organs against musket balls

It is intended that this Case be worn in the rolled blanket or overcoat suspended from the left shoulder, giving the right arm full play and allowing, as we have seen, the utmost freedom in the performance of the most important exercises of the manual of arms

Newport, R I, December 1885

MEDICAL PROGRESS.

STRETCHING THE SPHINCTER ANI —At the close of a recent lecture on the "Surgery of the Male Perinæum" MR C G WHEELHOUSE said that by London Surgeons, as a rule, the operation of "stretching the sphincter" is neither recognised, nor taught, nor appreciated, indeed, I have heard of its being scouted, as unsurgical and unnecessary Introduced into Leeds by the late Mr Teale, the practice of "stretching," in preference to "cutting," the sphincter has been upheld for twenty-five years at least, and of late years has rather grown than declined in your favor The principle upon which it is based is, of course, the one formulated and eloquently preached by the late Mr Hilton, that the true cure for parts suffering from irritation is to place them physiologically at rest, and the ground upon which we prefer it is, that by it we can attain our end without causing an external wound, and thereby rendering our patient liable to septic poisoning

Consider, for a moment, the position and office of the sphincter, to guard the rectum from the involuntary discharge or escape of its contents This, so long as the rectum is at peace, it is capable of effecting easily, perfectly, and without strain, and its ordinary action is neither violent, nor spasmodic, nor irritable But suppose some sort of irritation to have arisen in the bowel—acute diarrhœa, chronic ulceration, fissure, fistula, or piles—and what will be the state of the sphincter then? In direct proportion to the amount or of the duration of the continuance of the disease, it will become hypertrophied and strengthened to enable it to maintain its power and its office, and, in time, it comes to be enormously more powerful than is natural, or, were the parts in a healthy condition, necessary

Piles, supposing them to be the cause of the irritation, are perpetually tending to protrusion, and are ceaselessly warring with the muscle, from time to time, when the fæces are passed, the piles are protruded with them, remaining after defæcation in the grasp of the sphincter, they are crushed, and bruised, and become inflamed and painful, and even though they be released from their imprisonment, as they usually are, by the patient, and are returned into the bowel, it is only to continue there the war with the sphincter and to prolong the agony Or, suppose that a painful ulcer or fissure exists within the margin of the anus, and immediately within the anus is their most common seat, what will then be the state of affairs? The discharge from an ulcer or from fissures cannot get away, the sphincter will not permit it to do so, it accumulates and irritates the muscle, this retaliates by increased contraction, and thus the war goes on, to the infinite disadvantage of both parties concerned, the ulcer spreads, the fissure deepens, and the sphincter hypertrophies

Sometimes, in the case of fistulæ, matters do not become quite so accentuated or acute, for the matter finds a vent in the perinæum, beyond the range of the action of the sphincter, and the direct irritation to the muscle is so much the less, but in one and all these cases alike, you will have been, or you will be taught, and every text book you read will reiterate the fact that, for their cure, you may do whatever you will, but you will not succeed until you have put the sphincter at rest, and you are invariably assured that its division with the knife is the only way to do it

Now this is the point which we in Leeds contest We assert, and we assert it upon abundant practical experience, that careful, deliberate, and efficient stretching will do all that incision will do, and, doing it without causing any external wound, will subject the patient to far less risk than is possible by incision Some of you may smile at the idea of there being any risk in so simple an operation as division of the sphincter, but there are such things as accidents, Sir James Paget has most appropriately termed them "catastrophies of surgery," which ought never to be forgotten and should be avoided, where possible, by any amount of foresight on the part of the surgeon One such, in connection with the subject under consideration, happened to me in my early days, and, so profound was the impression it made upon me, that to forget it even now is quite impossible For a painful fissure of the anus, I passed a bistoury along its track, divided its indurated base, and, with that, the resisting sphincter underlying it, but in less than a week my patient, the father of a young family, was dead, having very speedily after the operation been attacked with acute and fatal septicæmia By stretching in preference to cutting, we have it in our power to avoid this risk, at any rate, and, in my experience, the best method of doing it, where possible, is with the fingers, or if need be, the thumbs alone Let the patient be placed fully under the influence of either, and then, according to the amount of the hypertrophy, or the degree of resistance in the sphincter, dilate it steadily, either with the fingers, or with some appropriate instrument, until you have overcome all undue resistance, and can leave the anus soft, patulous, and free from irritable tension

I have heard the question carefully discussed, as to whether the digital or the instrumental method of dilatation is the best Personally I prefer the digital, because, my object being to tear so much of the muscle across (the mucous membrane over it remaining intact) as shall be sufficient to diminish, without destroying its whole power, I can, when my fingers are the instrument used, feel with them when I have done what I wish, and I need do no more But so great is the hypertrophy sometimes, that the fingers, even of the strongest hands, are quite inadequate to the task of overcoming it In such cases I usually dilate steadily first with the instrument till I can withdraw it (wide open) with freedom and without resistance, or, with a tenotomy knife, I divide subcutaneously a given proportion of the hypertrophied muscle, and after that I carry on, where it is necessary, any further dilatation with my fingers —*British Medical Journal*, Feb 6, 1886

A DANGER IN HOUSE SANITATION —The space underneath the floors in dwellings, between the flooring and ceiling of the room below, is a part of the house which receives very little attention from the householder who may pass a considerable amount of time above it Because it is not of much thought, it does not follow that it is not an important object for consideration On the contrary it may become of prime importance in the health preserving qualities of a house

In most houses, there is no attempt made to fill this space The floor is laid on top of the joists, and the lath and plaster is put on the bottom, leaving a long open space between joists, connecting with the space between the studdings and the sides of the building This free connection is almost universal, and is objectionable in every case It permits a free circulation of cellar air all over the system of partitions and assists its general dissemination into the atmosphere of the house It creates an uninterrupted passageway for rats, mice, and other vermin, which often make themselves objectionable, to say the least In case a fire starts in the lower portion of the house from an overheated flue, or other cause, these open passageways offer avenues for the spread of the flames so that before any manifestation of its presence is made, it is far beyond control

These are the most patent objections to the open spaced floors, as constructed in many houses There are others which are more powerful than those recited, which will become perfectly apparent when attention is called to them In houses constructed with open spaces there is an inviting place for dust, dirt, and other impurities to collect, by constant sweeping, scrubbing, and the friction of many feet The modern sanitarian is educated to believe that wherever there is dirt there is danger The constant presence of germs in decomposing animal and vegetable matter, makes the presence of this collection of dirt quite to be feared

Another source of danger is the filling, or deadening, as it is sometimes called, which is used to fill up these spaces when anything is used Manifestly, it should be nothing of a decomposable nature, or a medium which could afford a harbor for vermin

The constant reappearance of a disease in a house or in a room, may be connected with this harbor of refuge for germs beneath the floors These spaces are seldom the recipients of pure air which would oxidize impurities, nor are they much affected by any ordinary disinfecting process It may be urged, then, that all floor-spaces be filled carefully, and when filled, it be with some such material as asbestos, mineral wool, or other matter not apt to become dangerous either from its own decomposition or by the reception of decomposable material —*The Sanitary News*, January, 30, 1886

Dry Dressings for Internal Cavities —Dr Charles F Hutchinson, of Scarborough, says in a note on this subject Dry dressings being now all the fashion, and to my mind most justly so, I wish to draw the attention of the profession to a very simple method of applying, in the dry state, dressings, styptics, etc , to such cavities as the vagina, uterus, and rectum

The only apparatus required is a hollow cacao-butter suppository, which suppositories are made in various sizes, the largest of which will just about hold one drachm of any ordinary powder These hollow suppositories are filled with the powder that may be wished to be used as a dressing, the small lid, after being gently heated, is put on, this when cool remains fixed, and the whole apparatus is then ready to be introduced into the vagina or rectum The heat of the body soon melts the cacao butter, and the powder is then brought, in as dry a state as possible, into direct contact with the parts During the last six months I have used these suppositories most freely, and have been more than satisfied with the result I have tried all sorts of powders, and as the result of my own experience strongly recommend the following, either alone or in various combinations as required

Firstly, as a styptic I most strongly recommend powdered iron alum I generally order one drachm of powdered iron alum and five grains of iodoform, to be well mixed together, the powder to be inserted into a hollow suppository and used as directed In the treatment of uterine hæmorrhage I am convinced there is no remedy of more universal application, and none on which I could with greater confidence rely I have used it in severe hæmorrhage from uterine cancer, bad miscarriage, and in several cases of menorrhagia at the change of life, and it has never yet failed me All that is required is to introduce the suppository as high as possible into the vagina, and there leave it It is as easily applied by the nurse as by the doctor, and is in every way perfectly safe and harmless

Secondly, as a dressing iodoform stands pre eminent, in fact, I now seldom use anything else This, when combined with from a quarter to half a grain of morphia, forms by far the best dressing for uterine cancer that I have yet tried

Thirdly, morphia, either alone, or as I generally now use it, in combination with either or both of the above, is a great aid to the physician and comfort to the patient

After attention has once been drawn to this simple mode of applying these various applications, the numerous uses to which they might be put in the various vaginal, uterine, and rectal discharges and diseases will occur to all I have only very briefly ventured to suggest the use of those in my own hands I have found deserving of confidence I have no doubt that hundreds of the profession are at present using this mode of dressing, but, on the other hand, I know that there are hundreds who are not, and it is to persuade those who have not yet tried them that I venture to bring this subject forward —*The Lancet*, February 15, 1886

The Uses of a Five per Cent Solution of Brucine —In a note on this subject Dr Ralph W Zeiss, of Philadelphia, says that he has arrived at the following conclusions from experiments with a five per cent solution of brucine

1 I have twice applied the solution, by means of a tuft of cotton on a cotton-holder, to painful *furuncles* of the external auditory canal In both cases marked relief was noticed in from two to four minutes, which

lasted for some hours, when the pain slowly returned as before. Skin in these cases not broken.

2. In cases of painful *suppurative otitis* of the middle ear (some five or six in all) the solution gave *some* relief in *all* cases; very *marked* relief from pain, lasting for a number of hours, in two cases. In these patients the solution was passed on the cotton tuft down to the fundus of the canal, and the raw and often bleeding surface carefully and thoroughly mopped.

3. I have used the brucine solution some scores of times in *sensitive conditions* of the auditory canal to render the use of instruments painless. No record was kept of these, but in about one-half the cases the patients volunteered the statement, "It don't hurt as much now," while in the other half no results of any importance were obtained, sensitiveness being in no way lessened.

4. Brucine, in my hands, has proved most useful in lessening or entirely abolishing the pain and burning caused by *applications* of iodine, nitrate of silver, sulphate of copper, and the like to the mucous membrane of the throat and nasal passages. I have repeatedly used it in these cases, perhaps nearly fifty times, and in almost every case relief was noticed, and in the majority of the cases pain and irritation were at once overcome.

5. In one or two cases of *burns* the solution has proved valueless.

6. Painted along the line of incision before opening a shallow abscess, it did no good whatever, the patient suffering as much as usual.

7. Used on the external surface of the body, the five per cent. solution has proved of no value whatever in my hands.

Speaking generally, I do not consider the brucine salt equal in its local effects to the muriate of cocaine. Though more lasting, it is much less reliable, nor does it seem to be so readily absorbed.

In some two or three instances, after liberal applications of brucine to the nasal cavities, patients have complained of having felt wildly "nervous" for some hours afterwards, evidently from the strychnine like effects of the drug. In no other instances were the slightest toxic effects noted, although as much as mv of the solution has been repeatedly used in the middle ear and nasal fossæ.—*Therapeutic Gazette*, Jan. 15, 1886.

MICROSCOPICAL EXAMINATION OF MORBID STRUCTURES.—The busy practitioner who has but little time to spare for elaborate investigation of diseased structure, says DR. W. B. KESTEVEN, and who probably has not the resources of a laboratory at his command, will nevertheless often desire to investigate the minute changes which have resulted from the pathological processes that he has watched to their fatal issue. Too often, indeed, it occurs that prejudice presents an insurmountable bar to the satisfaction of so laudable a curiosity. Another difficulty, moreover, is frequently interposed, under the idea that morbid structures must undergo a process of hardening previously to examination. The plan of hardening, staining, and clearing before mounting for microscopical examination is, however, I suspect, often attended with the alteration of portions of the elementary tissues. The examination of parenchymatous structures, such as liver, kidney, lung, sarcomata, schirrus, etc., can be effected in a few minutes by a ready method, the means of which may be always at hand. A Valentine's knife or a sharp razor will give a sufficiently thin section, which should be placed for two or three minutes in methylin, or aniline blue (not the blue-black). Surplus coloring matter should be washed off in water, and the section is then ready for microscopical examination—if it be desired to preserve the section it can be placed in glycerine, or Farrant's medium. These two staining fluids are valuable agents for the differentiation of structure in tissues prepared in the ready method now described. Cells, nuclei, fibres, and stroma are distinctly marked out. If the aniline, or methylin blue, be not available at the moment, a fairly good substitute may be found in Stephens's blue-black ink. Nervous tissues, such as brain or spinal cord, require for the full and complete examination of local changes that they shall be submitted to the processes of hardening, staining, and clearing, but a tentative, or preliminary examination of the fresh brain may be made by the "handy method" of Dr. Batty Tuke.[1] A small piece of the tissue, of about the size of a pin's head, taken from the supposed morbid portion, should be placed upon a glass slide and pressed down by a thin cover. The cover then being removed, a few drops of "Judson's magenta," or of carmine solution diluted with six or eight times its amount of water, should be mixed up by means of a needle, with the brain tissue and a clean thin cover pressed down upon it, until the substance is so thin as to be translucent. The cells, nuclei, and vessels will take the coloring matter deeply, whilst other structures remain unaffected. Morbid conditions are thereby brought into view—*e. g.*, pigmentary granulation of cells, change of form in nuclei, colloid bodies which refuse the stain, and the imperfectly colored miliary bodies, etc. Having made trials of a large number of staining fluids, the writer has satisfied himself that the two blues above mentioned are the best suited to the ready examination of parenchymatous structure; whilst for sections of hardened brain-substance he has learnt to rely most upon solution of carmine, and next to that upon aniline blue-black.—*Provinc. Med. Journ.*, Jan. 1, 1886.

CHANGES IN THE PUPIL AFTER DEATH.—From an interesting series of original observations upon the eyes of recently dead subjects and upon their behavior under certain physiological stimuli, MR. J. N. MARSHALL draws the following conclusions:

"(1) In most cases, the pupils are dilated at the time of death, the dilatation usually occurring within a short period of the fatal event. Dilatation at an appreciable time after death is quite exceptional. This condition is essentially paralytic and is independent of the state of the pupil during life, whether that is altered by drugs or by disease.

"(2) There is, in the great majority of cases, progressive contraction of the pupil after death. This varies within wide limits, both as regards its period of commencement and the degree of myosis attained

---

[1] British Medical Journal, Sept., 1874.

It usually begins within an hour after death, and continues for the next forty-eight hours. The contraction which is often unequal in the two eyes, is independent of the action of light upon the eye and of the occurrence of rigor mortis.

"(3) The pupil is susceptible to the action of atropine after death, for a period which probably varies with different subjects, but which may be as long as four hours when simple instillation is employed, and perhaps a little longer when the atropine is injected into the anterior chamber. The dilatation begins at about the same time after instillation of the atropine, as it does after instillation during life, but it differs from the dilatation after the latter in that it is of less degree, and that the influence of the atropine passes off sooner and leaves the pupil to follow its usual course.

"(4) The instillation or injection of eserine after death produces contraction of the pupil, but the period after death during which it can act is shorter than in the case of atropine.

"(5) The instillation of ergotine after death has no effect on the pupil, but its injection into the iris or anterior chamber produces contraction of the pupil up to at least two hours after death.

"(6) Pilocarpine injected into the dead eye has a slight myotic action.

"(7) The removal of the aqueous humor after death does not affect the ordinary behavior of the pupil.

"(8) Flaccidity of the iris during life is exceptional, but it is always present after death, and increases from the time of death onward."—*Boston Medical and Surgical Journal*, February 11, 1886.

THE SOURCE OF UREA.—MR. D. W. AITKEN, of Edinburgh, reports the following interesting case:—Early in January, 1886, he was called to see a boy who had, the day previous, received a rather severe blow upon the right lobe of the liver. When seen, he was complaining of much pain in the right hypochondrium. The skin was slightly, and the conjunctiva distinctly, jaundiced. The stools were pale, while the urine was bile colored, and gave the bile reaction with nitric acid; there was no fever. But herein lies the important matter. The urine was highly alkaline. On the addition of nitric acid, there was such violent effervescence, that the froth was forced out of the test-tube, although the urine was not much more than one inch deep. He got his friend, Dr. Drinkwater, to carefully examine the urine. He reported that the alkalinity was due to ammonium carbonate, and, on estimating the urea, he only found 3 per cent.

This evidence seems to him to point strongly to the liver as the seat of producing of urea. Dr. Graves has already reported several cases of absence of urea which he believed to be represented in the urine by the ammonium carbonate, but here we have a history of the organ involved.—*Brit. Med. Jour.*, Feb. 6, 1886.

A MODIFICATION OF FEHLING'S TEST.—BUCHNER has proposed the following modification of Fehling's method for sugar. Many saccharine urines only give an opalescent yellowish-red coloration, and no red precipitate of cuprous oxide, when heated with Fehling's solution, making therefore the presence of sugar appear doubtful. In such cases, the urine is to be boiled with excess of cupric sulphate solution (1:10). The greyish green precipitate is to be separated, and potassic hydrate, or some Fehling's solution, to be added to the filtrate, on boiling which the red suboxide of copper will be deposited, if even a small proportion of sugar be present.—*London Medical Record*, January 15, 1886.

PAINLESS OPERATIONS FOR PHIMOSIS.—DR. W. ROUNDS BARNES, of Binghamton, N. Y., writes that he performed circumcision upon a man 42 years of age, after having previously applied a four per cent. solution of cocaine for twelve minutes to both surfaces of the prepuce along the proposed line of incision. The patient himself rendered good service in wiping away the blood, and in holding the mucous and cutaneous surfaces together while the sutures were inserted. The hæmorrhage was very slight until sensation returned, which was not until the last suture was being put in. The patient remarked at that time that that was the first pain he had felt. The operation occupied thirteen minutes.—*The Medical Record*, February 27, 1886.

HYPONE AS AN ADJUVANT TO CHLOROFORM.—M. DUBOIS (*Revue Medicale Française et Etrangere*, Jan. 16, 1886,) states that, when a hypodermic injection of a sixth of a grain of hypnone has been given to a dog, the animal can be anæsthetized by making it breathe air containing four per cent. of chloroform, a mixture which, as M. Paul Bert has shown, never produces anæsthesia under ordinary circumstances. The anæsthesia ceases in about an hour, although the dog may continue to breathe the mixed gases. The same result may be produced by giving twice the amount of hypnone by the mouth. The practical value of these facts lies in the probable diminution that can be made in the amount of chloroform required for anæsthetization.—*The New York Medical Journal*, February 6th, 1886.

ARTIFICIAL COCAINE.—MERK succeeded in transforming benzoyl-ecgonin, a new substance discovered by him, into cocaine, as reported by the *Pharm. Zeitung* of October 31, 1885. It might interest some of the more speculative minds to know how to prepare the costly alkaloid without the Peruvian plant.

Several grammes of benzoyl ecgonin are heated to 100° (C.) with iodide of methyl and methylic alcohol, and then slowly evaporated. The product is a hydrate of iodine, and conforms to all tests of genuine cocaine, and even has the same melting-point as the latter (98°).—*Therapeutic Gazette*, January 15, 1885.

SUBCUTANEOUS INJECTION OF OXIDES OF MERCURY.—Subcutaneous injections of the black and red oxides of mercury have been recently tried as an anti-syphilitic treatment in the Lazarus Hospital at Warsaw by DR. VON WATRASZEWSKI, who has charge of the syphilitic wards. He finds that no inflammation and scarcely any pain is produced, no abscess having occurred after any of the 200 injections he has performed. The therapeutic results were most satisfactory both in recent cases and in those where the disease was of old standing.—*The Lancet*, February 13, 1885.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

Subscription Price Including Postage

Per Annum in Advance	$5 00
Single Copies	10 cents

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the under signed When neither is accessible remittances may be made at the risk of the publishers by forwarding in registered letters

Address
Journal of the American Medical Association,
No 65 Randolph Street
Chicago, Illinois

SATURDAY, MARCH 6, 1886

THE AMERICAN MEDICAL ASSOCIATION—IS IT DESIRABLE TO MAKE MATERIAL CHANGES IN THE PLAN OF ITS ORGANIZATION, PARTICULARLY IN THE DIRECTION OF ASSIMILATING IT TO THAT OF THE BRITISH ASSOCIATION WITH BRANCHES?

To increase the incentives to the formation of local medical societies and their active support by all intelligent physicians, the actual experience gained in the history of the progress of the American Medical Association not only led to an amendment of the constitution of that organization, by which the reception of delegates was restricted to State Medical Societies and such city, county and district societies as were recognized by their respective State Societies, as explained in our remarks in the preceding number of The Journal, but the same influence led to further changes in the same direction The original constitution permitted the Association at any regular meeting to elect an indefinite number of Permanent Members, provided those nominated received a unanimous vote It required but few years to show that at almost every annual meeting members were thus elected who had taken no interest in the local societies of their own city or State, and the number of these so increased as to attract attention, and led to the addition to the clause of the constitution defining the eligibility of candidates for membership, of the following clause "Nor shall any person *not a member* and *supporter* of a *local medical society*, where such a one exists, be eligible to membership in the American Medical Association" Consequently the election of Permanent Members by unanimous vote has nearly ceased

It is thus seen that simple practical experience has demonstrated during the past forty years the correctness and adequacy of the principle of strict *representation* for the support of the National Organization, while the same experience has equally shown that the few minor deviations from that principle which were incorporated into the original plan of the Association, have been steadily undergoing elimination for the sole purpose of strengthening the State and local society organizations It is an important law of social science that cannot be too clearly comprehended by all who are interested in organizing and sustaining societies of of any kind among men, that every step higher or more honorable a man gains, tends to make him more indifferent regarding the steps below An attorney who has fairly gained access to the Bar of the Supreme Court will rarely be seen doing business in a Justice court A statesman who has once sat in the legislative halls of the Nation will rarely be induced to subsequently accept a seat in the Legislature of a State or Province And as membership in a National Association is in the nature of things regarded as more honorable than one in a State Society, and the latter more so than one in a county or town society, membership in the first will make the latter seem less important, and it will be more readily neglected

Another law equally discernible in the working of human society, and the recognition of which is equally important to those who would plan wisely, is that whenever a high or desirable position is accessible through different channels, the great majority of men will take that route which is the shortest and least expensive in time or money We have already given illustrations of this in the preceding issue of The Journal, in the readiness with which the faculties of medical colleges and the staffs of hospitals, etc, sent delegates direct to the National Association, while but few of them, comparatively, were taking any part in the local societies around them until the constitution was changed But as delegates are still admitted to the National Association from city and county societies on the same basis as from the State Societies, every annual election of such delegates in the local societies results in the election of many who seldom or never attend the State Society Another illustration of the same principle is afforded by the number of those members of the profession, chiefly in our large cities, who make frequent visits across the Atlantic, choosing such times as will enable them to attend one or more of the important meetings of the medical societies in Europe The sanitary effects of a sea voyage, the gaining of recognition by eminent men abroad, and the popular *eclat* gained at home by the supposed advantages of foreign travel and study, combine to make such trips to those who have the means doubly attractive Hence it is not difficult to find those who have not only more frequently attended medical societies and institutions in Europe than those of their own country, but who appear to have also acquired far more familiarity with the medical men and literature of Germany than of either, as they actually exist in this country, while they are too readily accepted as *the prominent* medical men of America by those whose acquaintance they so assiduously cultivate, and in turn many of them acquire the habit of giving expression to the idea that we have neither educational institutions, scientific investigations, nor really eminent medical scientific men (themselves perhaps excepted) worthy of attention in this country We by no means object to visits to the societies and institutions of other countries, or to the cultivation of foreign literature, but we regard it as the duty of every right-minded man not only to thoroughly acquaint himself with the literature and institutions of his own country and ever be ready to represent them fairly, but every member of the medical profession who can command the time and means to gather knowledge in other countries, is under unusual obligations to attend and give active support to the social and scientific interests of his profession at home

The influence which has been exerted through the organization of the American Medical Association on a uniform basis of representation by delegates from State and more local organizations, exacting but the one condition that all the constituent organizations should be governed by *one* Code of Medical Ethics, has led to the establishment of efficient State Medical Societies in every State and inhabited Territory in our widely extended country, nearly all of which are based on the same representative principle in regard to the more local organizations in each State And although none of these organizations are so complete as to embrace all the members of the regular profession within their limits, yet they do *collectively* embrace a large majority of regular active members of the profession in the United States of America, and the American Medical Association, as the delegated head of all these confederated societies, is the legitimate and authorized representative of the whole If those who are in the habit of disparaging and denying the extent of the actual constituencies of the Association at the present time, will take the trouble to estimate carefully the number contained in all the State, district, county and city societies entitled to representation in the National Organization, they will find that it rests to day on an actual constituency of not less than 40,000 members of the profession

If those who have so freely indulged in denunciations of this extended National Organization during the past year, and have diligently endeavored to persuade the world that its day of usefulness had passed, and the sooner it was abandoned the better, will spend a few hours in examining the record of its influence in aiding the Medical Corps of the U S Army and of the U S Navy to obtain from Congress the legal recognition of a more just and honorable official rank, in from year to year urging directly and through its constituent State and Local Societies the enactment of laws for establishing State Boards of Health and other measures for improving the sanitary condition of all our municipalities, and in lending its entire influence until probably every member of Congress had been reached and influenced in his own home by members of the Association, who are also voting members of his own constituency, in favor of the necessary appropriations for adequate fire proof buildings to preserve and protect through all coming time the magnificent Medical Library and Museum of the Surgeon-General's Office at Washington, they may possibly see in what it has, at least, aided to accomplish, some excuse for helping it to exist for further work in the same directions

PTOMAINES, LEUCOMAINES, AND MICROBES

At the meeting of the Academie de Médecine of Paris, on February 2, M Peter read a communication on this subject, in which his object was to point out the bearing of clinical observations on the discoveries of Gautier Independently of their intrinsic value, he says, these discoveries have the merit of confirming what we know of poisoning of the organism by itself, by giving a greater degree of precision to our previous knowledge It need scarcely be said that M Peter refers to Gautier's discovery of the alkaloids of decomposition, to which Selmi gave the name ptomaines He has also shown that in living animals, and by the very fact of life itself, certain analogous alkaloids are developed, to which he has given the name "leucomaines" And he has shown that in living animals certain non-crystallizable nitrogenous substances are produced, undetermined as yet, and that these are extractive matters While all three are highly poisonous, the extractive matters possess greatest toxicity

In considering these bodies, says M Peter, we naturally turn to the chemical side Here clinical experience steps in and shows that to the difference in intoxication corresponds a difference in heat; poisoning by the extractive matters produces increase in temperature, while intoxication by the animal alkaloids produces decrease in temperature; and one may see in the same organism an association or alternance of increased and lowered temperature, according as there is an association or alternance of the different poisons. But what is very interesting, and of no little importance, says M. Peter, is that the discoveries of Gautier protect us from the tyranny of the microbes. They really explain the formation of the most poisonous alkaloids and the still more poisonous extractive matters. "They show that auto infection, *spontaneous* infection of the living organism—*spontaneous*, that is to say *by itself*—that spontaneous infection, I say, of this organism by the alkaloids and extractive matters which it produces in itself because it lives, is merely a question of quantity; in other words, the living organism may poison itself by the accumulation within itself of these substances made in itself."

But how is this poisoning of the organism by itself brought about? According to M. Peter, and the idea is by no means original with him, life is an essentially relative and contingent phenomenon; it is a series of partial deaths. Health is also an entirely relative phenomenon, and just as contingent, the unstable equilibrium between good and bad. The series of partial deaths which make up life is the result of the working of the organs of animal life. When we think heat is evolved in the brain, and the material result of cerebral activity is neurine, an alkaloid improper to normal life. Muscular movement causes heat, the material result being creatinine and other alkaloids improper to normal life. In fine, all the organs which work and which, by working undergo partial destruction, make, besides these alkaloids, extractive matters. Life, then, is also only a partial and prolonged suicide; and it is easily seen how precarious is the state called "health," and how, even by the action of our own organs, disease may supervene: all that is necessary is the accumulation in our bodies of "cadaverized" materials. Such accumulation presupposes insufficient elimination, and this may take place in two very different conditions of life. Sometimes the alkaloids and extractive materials are produced in excess, the emunctories remain normal, but are momentarily insufficient for carrying off these substances as fast as they are produced. Or there may be a normal production of these substances, but the emunctories are morbidly altered or suppressed for the time being.

Having followed our author to this point it is not difficult to see the point to which he would lead us—to a belief in the spontaneous origin of disease and thorough skepticism in all sorts of microbes, especially as we know that he has long since proved, to his own satisfaction, that a microbe is an accident. He knows that typhoid fever arises spontaneously, because he has seen cases which he could not trace to any other origin. Let us suppose, he says, that a certain quantity—say 10 units—of extractive matters and alkaloids is produced in the organism of one man, and that he only eliminates 8 *per diem*; obviously in twenty days he will have 40 retained in his system, which is sufficient for intoxication and disease. Autotyphisation is the result, and the man has typhoid fever. According to this theory we must regard disease as the result of the accumulation of a certain amount of excrementitious matter; a different amount, with different proportions of each excrementitious substance, for each affection. This would certainly be a most convenient theory if we could only find out just what matters, and how much, are retained in each disease, and how they could be eliminated before the disease sets in.

Our readers are now prepared to know that Prof. Peter holds that uræmia is due to the "adulteration of the blood by a cadaverized animal matter, the urine." In his opinion other diseases are produced in analogous ways. He concludes his remarkable paper with a denunciation of Koch and the comma-bacillus, and unhesitatingly pins his faith to Gautier's leucomaines. "Henceforth," he says, "medical intelligence will not hesitate between the parasitic doctrine, full of dark hypotheses, and this new doctrine, as luminous as precise, which explains the normal and abnormal phenomena of life by life itself in action." M. Peter's theory (or doctrine) may be compared to that so ingeniously elaborated by Desprès regarding the nature of syphilis. Both show that while a man may be an accurate and acute observer, he may be a very bad interpreter of the facts observed.

SIR ANDREW CLARK'S VIEW OF THE PATHOLOGY OF ASTHMA

In one aspect of the case it is amusing to note the great diversity of opinion among medical authorities concerning the nature of diseases; in another it is lamentable. It reveals the limitations imposed upon man's knowledge, and above all it emphasises the uncertainty of medical knowledge. There is scarcely a subject about which a difference of opinion does not prevail. As set forth in a leading article of the issue of this JOURNAL, of September 19, 1885, the etiology of asthma is no exception to the rule. With regard to this distressing malady the determination of its exact nature would have a practical bearing upon its treatment

Whatever may be said of our English brethren as pathologists, they are practical men and careful clinical observers Hence it may be of interest to know what so eminent a teacher as Sir Andrew Clark has to say on the subject of the causation of asthma The last number of the *American Journal of the Medical Sciences* contains a paper by him entitled "Some Observations on the Theory of Bronchial Asthma viewed in the light of the Pathology of Hay Fever" After setting forth his reasons for the belief that hay fever is not to be regarded as due exclusively to some external irritant, as the pollen of plants, but that there is a neurosal element in the disease, and after citing instances in which hay fever and typical spasmodic asthma alternated with each other, "like a regular see-saw between the nasal and bronchial troubles" he states certain propositions, as follows

"1 Asthma is a neuro vascular trophic disease, and has its roots in a special vulnerability of the respiratory mucous membrane, of the respiratory nerve centres, and of certain portions of the sympathetic

"2 The irritation exciting the nerve discharges which bring about the asthmatic paroxysm may arise in the blood, in any one of the mucous tracts, but more particularly the respiratory one, in certain cutaneous inflammations, and in the central nervous system itself

"3 The paroxysm begins by a more or less diffused hyperæmic swelling of the bronchial mucous membrane, and is continued by the development at various parts thereon of circumscribed congestive swellings, which come and go with greater or less rapidity, and resemble, in many particulars, the swelling of the skin in nettle rash

"4 At their first appearance these swellings become coated with a viscid mucus, hinder the entrance and exit of air, and by their vibration produce for the most part the drier râles characteristic of a certain state of the asthmatic paroxysm Towards the close of an attack, the swellings after free secretion subside, the dyspnœa is relieved, and moist takes the place of dry râles

"5 The secretion from the swellings being sometimes acrid, and even corrosive, may excite some contraction of the bronchial muscles, but such contraction can not become, either by its nature or its amount, the chief factor in the evolution of the asthmatic paroxysm

"6 The hyperæmia and circumscribed swellings of the bronchial mucous membrane hindering the free entrance of air, and thereby the full aeration of the blood, both the peripheral nerves and the respiratory centres are irritated, and exaggerated discharges of respiratory impulses are sent to the inspiratory muscles, which are thrown thereby into violent and sometimes even tetanic contractions

"7 These violent inspiratory efforts increasing the Hallerian extension force of the thoracic walls, straighten the bronchial tubes, and notwithstanding the tendency of respiratory forces to increase the size of the swellings, make the entrance of air into the lungs far easier than its exit

"8 When the inspiratory efforts cease, and the expiratory recoil begins and is continued by the muscles of forced expiration, the smaller bronchi, more especially those containing mucous wheals, are compressed, and all the passages are relaxed and lose their straight direction Thus the egress of air is greatly hindered, and the act of expiration so much prolonged that it is something suddenly interrupted and prematurely closed by the violent inspiratory efforts originated in the respiratory nerve centres through the circulation of imperfectly oxidated and decarbonized blood In this way inspiration gains upon the expiration, the alveoli are extended with air, the diaphragm is depressed, the chest, in all its dimensions, is dilated, breathing becomes more and more difficult, death seems imminent, and the paroxism is at its height

"9 After a time, varying greatly in duration, the attack begins to subside, and, partly by secretion from the bronchial mucosa, partly from the exhaustion of the excitability of the respiratory and vaso motor centres, respiration becomes easy, lividity and swelling of the face disappear, restless anxiety is displaced by growing calm, and the attack is brought to an end"

As Sir Andrew states, his theory resembles somewhat that propounded in 1872 by Weber, which is that asthma is due to a fluxionary hyperæmia of the bronchial mucous membrane, but Sir Andrew Clark says that he has taught his theory for twenty years If perused attentively, it will be found to present some novel features with which issue might fairly be taken Yet, as the author says, a theory should be judged "not by its fertility or barrenness" but by its practical workings Viewed in this light there are certainly some cases of asthma which are so amenable to treatment of the kind likely to remove bronchial congestion, if it exist, that it seems legitimate to refer the paroxysm to such a cause On the other hand, there are asthmatic patients in whom the neurotic element is so predominant as to make Sir Andrew Clark's theory inadequate to their satisfactory explanation

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, February 15th, 1886

THE PRESIDENT, C T PARKES, M D, IN THE CHAIR

(*Concluded from page 245*)

DR HENRY T BYFORD read a paper on the

PRODUCTION AND PREVENTION OF LACERATION OF THE PERINÆUM, WITH DESCRIPTION OF AN UNRECOGNIZED FORM

(See page 253)

For the purpose of illustration the perineum was divided into two parts, the vulval or external, and the vaginal or internal The former lies external to the muscles and the latter includes all the rest When the perineum is slightly stretched by the head two rings may be felt by hooking the finger over the fourchette, an external ring marking the edge of the vulva and an internal ring marking the edge of the muscles and fascia about the vaginal orifice Upon the positions and relations of these rings depends the safety of the perineum When the occiput engages in them before the forehead passes the coccyx, the fourchette and muscular edge are pressed downwards and the perineum but little bulged and not at all endangered When the occiput does not engage in the rings before the forehead leaves the coccyx, the fourchette is pushed upward before it, the perineum stretched from three to four inches antero posteriorly, while part of the propelling force and nearly all of the directing force are lost before the head passes the rings and is born The head in such cases has a greater distance to travel before delivery, involving loss of time and strength

The author described an obscure but not infrequent form of rupture in which separate muscular fibres and portions of the fascia give way all through the perineum, or through a region of it, without involving skin or mucous membrane Frequently there were not enough unruptured fibres left of the tissues to insure contraction and involution, and thus prevent displacements of the uterus A persistent flabbiness is the chief diagnostic sign To prevent rupture Dr Byford advised 1 To gain time for dilatation without injury to the deeper tissues by favoring a slow advance of the head over the floor of the pelvis 2 In order to secure sufficient dilatation of the vulval and vaginal rings to make the occiput ride over them instead of hooking under them by keeping the membranous pouch intact, or in its absence early resort to artificial dilatation rather than wait for the fourchette to be thus hooked up over a bulging perineum, and then resort to the ordinary methods

DR G H RANDALL thought that by directing the head many perineums might be prevented from rupturing We sometimes fail to direct the head and manipulate the perineum as each case requires because the woman is not in the proper position Formerly he had delivered most of his cases in the dorsal position, but not being satisfied with the way he was able to manipulate the perineum and head, he had tried the lateral position, and it seemed a great improvement He could now support the perineum by directing the head with a great deal more ease and effect than ever before, and it seemed to him that the lateral position is preferable to the dorsal

DR C T PARKES exhibited some

SPECIMENS FROM BATTEY'S OPERATION, AND OF OVARIAN TUMOR WITH TWISTED PEDICLE

"The specimens which I have to present to you on this plate are two ovaries and forty gall stones The two ovaries were removed from a lady who had suffered for over ten years from a great deal of trouble in the pelvis They are noticeable in that the left one is very small and the right one very large In this box are forty three gall stones which I removed from a gall-bladder yesterday In reference to the oophorectomy, I desire to call attention to the knot used in securing the pedicle and which has been rendered famous by Mr Tait, he calls it the Staffordshire knot Its use got me into trouble It does not secure the pedicle by merely tying the knot It must be drawn sufficiently tight to cut off circulation in the pedicle before the final knot is secured, otherwise the pedicle is very feebly constricted I used it in this case in securing the left ovary, and passed on to the removal of the right ovary, during which operation I noticed that a good deal of bleeding was going on Having removed the right ovary, I then looked for the point of hæmorrhage and found a spurting artery in the unsecured left pedicle I was astonished, because I thought I had tied the knot very tightly It is necessary that the constriction should be made by the string, and the circulation must be entirely cut off before any attempt at tying is made The other specimen is a large tumor, the weight of which was estimated at twenty-three pounds Eight days before the operation, the patient having been in a previous condition of apparent good health, was suddenly taken sick, temperature 102, pulse very fast and feeble, abdomen tender from peritonitis, urine suppressed I diagnosed a twisted pedicle, and advised immediate operation The operation was done as soon as possible, and although she was in a very feeble condition at the time, the operation apparently made very little impression up on her As soon as the abdominal incision was made a black tumor presented, and instead of the cyst portion being uppermost, as is almost invariably found, the solid portion was in front When the trocar was pulled out there was scarcely any hæmorrhage from the opening made by it, usually there is considerable hæmorrhage, especially when introduced into a solid tumor When it was removed from the abdomen there was found to be a turn and a half in the pedicle The temperature fell after the operation and did not again come up to one hundred On the seventh day all the stitches were removed and the patient is practically well to day These tumors sometimes have pedicles twisted completely off, so that they are in a sloughing condition, in other cases the twisting goes on so slowly that the pedicle is finally destroyed entirely Spencer Wells says that he has found tumors with no pedicles The three points that seem to me to indicate this diagnosis are the rapid occurrence of distension, the commencement of peritonitis, and the suppression of urine "

THE PRESIDENT said in answer to a question, that because a patient has symptoms of gall-stones and the evidences are pretty positive of their presence, no one must imagine that thereby he is going to have an easy time of the operation The case from which these gall-stones were removed was a very difficult one for operation The patient was a woman of considerable adipose tissue on the surface of the body, and it was difficult to expose the gall-bladder at all The liver, instead of being distended and projected below the ribs, was contracted and high above them It was difficult to find the gall bladder at first, and it was found to be about the size of a finger, elongated and lying in its natural position and adherent to the liver The fundus was contracted and hardened or thickened so that the finger had to be passed well down along its surface before any evidence of the stones could be found at all, it was separated from its attachments to the under surface of the liver, and then by carrying a thread through its fundus it was lifted to the top part of the incision and the finger introduced into the cavity of the gall-bladder and the stones removed Of these stones the largest was found in the gall duct It was forced from the gall duct into the gall bladder

DR H P MERRIMAN asked the President if any cause was known for the twisting of the pedicle in ovarian tumor

THE PRESIDENT said that he made very close inquiry on that point, the night previous to the occurrence of the trouble the patient felt something move in the abdomen from the left to the right side She was lying in bed at the time In reply to Dr Strong the President said he did not think that rupture of the cyst would not be followed by an increase in the size of the abdomen, nor by any change in the function of the kidney

DR W FRANKLIN COLEMAN read a paper on

A REPORT OF THREE CASES OF OSSIFICATION OF THE CHOROID, AND THE REPORT OF ONE CASE OF OSSIFICATION OF THE LENS, WITH SPECIMENS

In cases one, two, three and four the eye had been lost five, twelve, fourteen and thirty four years respectively before medical advice was sought on account of sympathetic trouble in the fellow eye In cases one, two and four the lost eye had occasionally been painful In cases one, two, three and four sympathetic disease did not occur after the loss of the eye until five, twelve, eleven and eighteen years respectively The sympathetic disease excited in case one was serous kerato iritis, case two, cyclitis, case three, irido cyclitis and cataract, case four, optic neuritis and mild iritis Dr Coleman advised the immediate enucleation of a bony eye on the same ground that the enucleation of an eye lost from injury in the ciliary region would be advised Neither the ossification nor the injury is in itself the immediate cause of the sympathetic disease, but either may be the indirect cause by exciting an irido cyclitis

DR R TILLEY said the term ossification of the lens might lead to a misunderstanding, that there is actually ever an ossification of the lens Becker, of Heidelberg, claims that ossification of the lens can not and does not take place, and that there is no case of it on record He says that in the case of a ruptured capsule a membrane may be developed from the ciliary region, and from the developing blood vessels an ossification may take place in the region of the lens, but that it should not be called an ossification of the lens He gives an interesting case showing how readily a mistake may be made and ossification supposed A boy was struck in the eye with a hay fork, and came under his care about ten hours after the accident Forty-three hours after the accident the eye was enucleated, and he thought from a macroscopic examination that the lens was intact, but on microscopic examination, what he supposed to be the lens was found to be an extravasation of blood, and the lens had escaped He remarked that it is easy to see that an ossification might have occurred, under these circumstances, and the same been taken for the lens

DR COLEMAN said, in conclusion, that he was well aware that literally and truly the lens fibres do not become ossified, but wherever connective tissue exists ossification may occur, and connective tissue may occupy the site of the lens Dr Voorhies cites a case in his own practice of an ossific mass occupying the normal position of the lens which an expert microscopist, upon examination, pronounced ossification of the lens Dr Knapp does not say he denies the possibility of such ossification

---

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, February 10, 1886

THE PRESIDENT, C H A KLEINSCHMIDT, M D, IN THE CHAIR

T E MCARDLE, M D, SECRETARY

THE PRESIDENT presented a

PAPILLOMA OF THE UVULA

The patient was an old gentleman between sixty and seventy years of age, a local preacher by profession He had found for several years that after preaching for twenty minutes or more he was constantly compelled to clear his throat, and before his sermon was finished his voice failed him Dr Kleinschmidt examined his throat and discovered a growth in the left side of the uvula, near the apex The tumor was removed without any difficulty Dr W W Johnston presented a similar specimen to this Society ten or fifteen years ago

DR E CARROLL MORGAN said he was glad Dr Kleinschmidt had presented this case of papilloma of the uvula to the Society, as such growths rarely develop in this location, and it consequently presents interesting features He had noticed recently in reading the report of an institution for the treatment of diseases of the throat, embracing nearly three thousand patients, that only one case of a papillomatous tumor of the pharynx was recorded, and none of the uvula proper His personal experience with papillomata of the uvula included three cases, all occurring in subjects under six years of age, one in a babe about thirteen months old The tumors in his own cases were in every instance smaller than the specimen exhibited by Dr Kleinschmidt, were readily removed, and no recurrence has taken place Dr Morgan thought that papillary growths of the uvula are often of congenital origin, and his belief is further strengthened by the tender age of his own patients and that of other recorded examples These tumors rarely attain enormous dimensions and are only occasionally observed in adults, for the annoying symptoms produced by the presence of a growth on the uvula force the patient to seek medical aid, and an early removal is the result Instances of immense papillomata of the uvula and of the pharynx are, however, reported by Lennox Browne, of London, and Roe, of Rochester In Browne's case the tumor was as large as a marble The treatment of this class of tumors is simple, requiring their removal by means of scissors, snare, or forceps, and the subsequent application of the galvano cautery blade, chromic acid, mono chlor acetic acid, or the acid nitrate of mercury, to their base Recurrences seldom, if ever, occur

Dr J B Hamilton presented some

SPECIMENS FROM A CASE OF CARIES OF THE KNEE JOINT,

upon which he had operated at Providence Hospital two weeks ago The patient was a negro who had suffered from suppuration of the knee joint for more than two years Dr Hamilton removed the patella and the joint surfaces of the femur and tibia These bones were brought in apposition, and although there is some suppuration the patient is comparatively free from pain and is doing well The specimens showed a deep abscess of the head of the tibia, and the entire joint surfaces were eroded

(*To be concluded*)

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

The Relation of Experimental Physiology to Medical Jurisprudence—Poisoning by Colchicine—Antiseptic Value of Biniodide of Mercury—Ferrán on the Comma bacillus—Medical Students in Paris—Death of Dr Daniel MacCarthy

In certain cases experimental physiology may render great service to medical jurisprudence, when chemistry so often fails According to Dr Laborde, Chef of the Physiological Laboratory of the Faculty of Medicine of Paris, it is sufficient to know how a toxic alkaloid acts upon a certain function At a recent meeting of the Société de Biologie, Dr Laborde developed the subject in the following example A dóg was accidentally poisoned in a laboratory, presumably by veratria or by aconitine Chemistry was inefficient to solve the problem by the examination of the different organs and the liquids they contained It was then determined that a certain quantity of these liquids should be injected into the cellular tissue of a dog that was procured for the experiment, the beats of the heart were modified and the graphic tracings indicated in a *peremptory* manner that it was aconitine that was the substance absorbed, which, however, existed in too small quantity for chemical reagents to detect By physiological experiment one can obtain more precise results, and be able to know, exactly, the dose of the poison absorbed

This mode of investigation, however, does not seem to answer in all cases In a report read by Professor Brouardel at a recent meeting of the Société de Médecine Légale, on a case of *poisoning by colchicine*, he stated that fragments of the viscera of the supposed victim which were injected into the veins of animals, produced no phenomena characteristic of poisoning by colchicine. Moreover, the author observed that to establish a case of poisoning there must be perfect concordance between the points of information furnished 1 By chemical examination, 2 by the necropsy, 3 by chemical analysis, 4 by physiological experiments In the case under consideration, the hypothesis of poisoning by colchicine was justified by the symptoms observed during life, which clinical information might be added to the conditions named above, as being necessary for the elucidation of cases of reputed poisoning

M Miguel, a well known chemist, in a list published by him of the antiseptic power of divers substances, placed the bichloride of mercury among the most efficient, but it has since been superseded by the biniodide of mercury, which, after some new experiments by the author, has been found three times more active than the bichloride To prevent fermentation in a litre of sterilized bouillon, it requires about 25 milligrammes of the biniodide of mercury and 70 milligrammes of the bichloride It is impossible for bacteria to live in a solution of the biniodide of mercury of the strength of $\frac{10}{1000}$, or of the bichloride of that of $\frac{14}{1000}$ The author recommends that when a good antiseptic is required, whether in obstetrics or whether after operations on the vagina and the uterus, a solution of the biniodide of mercury of the strength of $\frac{1}{4000}$th should be employed in preference

After having retired in obscurity for awhile, Dr Ferrán, the famous anti cholera vaccinator, has revived his favorite subject by addressing to the Paris Academy of Sciences a work got up by him in conjunction with M J Pauli, "On the Active Principle of the Comma bacillus, as the Cause of Death and of Immunity" From four series of experiments performed on guinea pigs, the authors drew the following conclusions 1 The dead comma bacillus communicates the tolerance which permits the organism to resist the effects of the living comma-bacillus 2 The active principle of the comma bacillus, isolated by certain known methods, confer a condition which permits the organism to resist the effects of the living microbe, and vice versa According to MM Ferrán and Pauli, the cause which determines immunity and that which occasions death are one and the same, and is essentially of a chemical nature, consequently immunity is in reality nothing more than a certain habit or state of the system which may be obtained by purely chemical agents

In his report for the past year, Dr Béclard, the Dean of the Faculty of Paris, makes the following statement The average number of students has been about the same as that for the last few years, viz, 4000 Of this number there were 103 women, among whom there was one Indian, one Turk, three Austrians, eight French, and seventy-six Russians During the last seven years only eighteen diplomas were issued to doctoresses, rather a small number in proportion to the number of lady students who took out their inscriptions Dr Béclard further states that the presence of women among the students has, till now, caused no inconvenience in a disciplinarian or moral point of view Four hundred and eighty degrees of Doctor of Medicine were given to candidates of both sexes during the year

At the last competitive examination for the Externat of the Paris Hospitals there were 287 candidates, and among the successful ones I find the names of four lady students, Miss Klumpke took the ninth place in the list At the examination for the Internat, at which ninety-eight candidates were received, Miss Klumpke came out the twelfth

The English Colony in Paris has just lost one of its oldest and most respected members by the death of Dr Daniel MacCarthy, at the age of 69 years He had been in failing health for some months past, in consequence of which he had been gradually obliged to relinquish his large practice The deceased physician was the son of English parents, but he had spent the greater part of his life in France, which became the country of his adoption He took his degree in 1844 at the Paris Faculty of Medicine, and although his connections were principally French, his practice extended to the English speaking residents of Paris A B

DOMESTIC CORRESPONDENCE

BRANCHES OF THE AMERICAN MEDICAL ASSOCIATION

To THE EDITOR OF THE JOURNAL

Dear Sir —From the tone of the letters published in THE JOURNAL of February 27, especially those of Drs Hamilton and Keller, I am afraid that I did not state my ideas on this subject with sufficient clearness in my letter in THE JOURNAL of February 6 My whole object is the future good of the Association, *and therefore* of the medical profession in this country My object is *not* so much to increase the *power* of the Association, as its influence, and the further object is to organize the profession in America Dr Hamilton and some others seem to be under the impression that it was proposed to do away with the State Societies and their power altogether On the contrary, I took special pains, in my letter of Feb 6th, to keep any one from thinking that I advocated such absurdity Dr Hamilton's proposition to "simply open the doors of the Association so that its members shall include the members of affiliated State Medical Societies," etc, must be regarded, I think, as excellent

Dr Keller also seems to have mistaken my meaning when he says "I can see no other object in making the changes suggested than that of increasing our membership and strengthening or replenishing our treasury, at the sacrifice of our State Societies, which have done good work in standing as the only gates through which entrance to the Association could possibly be effected, and it occurs to me that the moment they are removed we will let down the bars to hordes of crooks and charlatans whose crookedness shuts them out of Societies at home where they are best known" I cannot see how my meaning could possibly have been so mistaken In THE JOURNAL of February 6, page 164, I say expressly "The State Society would still have control of its members" There is not a word in the whole letter which advocates sacrificing the State Societies, and not a word which can be construed to mean that the Branch system would let down a single bar to a charlatan The safeguards against crooks and charlatans would be as strong as ever, but a very large amount of red tape would be taken away from the requirements for admission to the Association when *respectable and reputable physicians* desire to enter The British Association has members who are not attached to any Branch, and the American Association has members who are not members of any State or local Society, but they are not necessarily charlatans But I hope that those who enter into this discussion in the future will at once read my letter carefully, and dispossess their minds of the idea that there is a plan on foot to relegate the State Societies to the limbo of oblivion I would have them stay just where they are, as regards all their rights and privileges The object of my proposition undoubtedly is to increase the membership of the American Medical Association, to make it more powerful for good and against evil in the profession If any one can propose a plan which will be more acceptable to the majority than the Branch system, I will certainly not raise my voice against it, but I do not see that a plan is necessarily bad because it is imported from Europe (and I am not an Anglo maniac) The plan suggested by Dr Hamilton certainly has the merit of simplicity

Finally, the differences of opinion shown in the four letters published in THE JOURNAL of February 27, shows that the subject has not been broached any too soon, for the whole matter should be brought up before the meeting in St Louis, and referred to a committee to report on at the annual meeting in 1887 And while any plan would be objectionable which would sacrifice existing organizations, a plan which would ignore them would be equally objectionable

Inasmuch as the adoption of any one of the plans proposed would necessitate a change in the Constitution of the Association, and as any proposed change must lie over for one year, the whole matter should be referred to a wisely selected committee, which should fully investigate the matter in all its bearings and aspects, obtaining, in so far as possible, the sentiment of members of State and local Societies, so as to make a complete and comprehensive report in 1887 BRANCH

TO THE EDITOR OF THE JOURNAL

Dear Sir —In a letter in THE JOURNAL of February 6, "Branch" opens up a very proper field of discussion in the closing paragraph of his letter on "Branches of the American Medical Association," when he says "Any one who will take the trouble to look the matter up will be surprised to see the number of physicians in this country who do not belong to any medical organization at all Even in some of the most populous States there are numbers of Counties without any medical society, and in many of the Counties in which medical societies exist, there are numbers of medical men who have no connection with them "

To show that this is true I need only mention the State of Illinois as a most striking example Exclusive of Cook County there are one hundred Counties in the State, with only *seventeen* (?) County Medical Societies These one hundred Counties have between 3400 and 3500 regular physicians, and only 417 who are members of a County Medical Society As regards the proportion of society members in the Counties in which societies exist, the following are the figures, as nearly as I can ascertain Adams County, 87 regular physicians and 48 Society members, Champaign, 76 physicians and 27 members, Clinton, 28 to 9, Crawford, 29 to 11, De Witt, 32 to 20, Douglass, 31 to 19, Jersey, 17 to 6, Macoupin, 56 to 32, Madison, 67 to 26, McLean, 83 to 57, Montgomery, 36 to 13, Ogle, 33 to 16, St Clair, 79 to 27, Stephenson, 36 to 19, Vermillion, 80 to 43, Winnebago, 51 to 22, and Woodford, 23 to 22 Seventeen Counties, therefore, with 844 regular physicians, have only 417 society members (this is as near as I can approximate without late returns) There are 911 regular physicians in Cook County, 812 of whom are in the city of Chicago Of the 99 outside of the city 8 are members of the County Medical Society, 6 are members of the State Medical Society (2 of whom are members of the County Medical Society), and 3 are members of the American Medical Association There are, then, 87 regular physicians in Cook County, outside of the city who are not members of any medical organization Of the 812 in the city only 302 are members of the County Medical Society As the transactions of the Illinois State Medical Society for 1885 has not yet been published I have not been able to ascertain the number of members in the State Society, but I may safely say that there are not 1000 members From the "Medical Directory" it appears that only 96 of the 812 in the city are members of the State Society

It must be admitted that this is an exceedingly poor showing It may not be worse than that in some other States, but at the same time it is bad It shows that there must be something radically wrong with the societies or with the doctors—and we can scarcely believe that the great majority of our medical men are at fault In order to join the British Association or one of its Branches the candidate must be recommended as eligible by three members, and he may be elected a member by the *General Council* of the Association, or by any recognized *Branch Council* (the name of the candidate seeking election by a Branch Council must be inserted in the circular calling the meeting at which he seeks election) Red tape is thus reduced to a minimum, and yet there is no more probability of a bad man getting in than into one of our State Societies It seems absurd to keep a man out of a State Society—or out of the American Medical Association (as was the case before the meeting in 1884)—because he does not or can not attend the annual meeting at which he seeks election In 1885 my name was placed before the Chicago Medical Society for two reasons I wished to be a member of the local Society, and I was anxious to join the State Society at the Springfield meeting I was told that there would be no difficulty in being sent as a delegate from the Chicago Medical Society There was no want of time, for the State Society was not to meet for about six or eight weeks After my name got into the hands of the Committee and before the Society, the business of the Society hung fire, meeting after meeting, in order that some quarrel might be "investigated" The result was that my name, and those of several other applicants for membership, remained unacted upon, and I could not join the State Society

In many respects the "delegate system" is simply a nuisance, a seemingly nicely devised plan for keeping out men who cannot attend a meeting or who are not members of a local society And when, as is the case in Illinois in so many counties, there is no County Medical Society, hundreds and hundreds of physicians may be kept out of the State Society altogether Having heard that the "delegate system" is not in force in the Medical Society of Virginia, I find the following regulation for the admission of members in the Constitution of that Society "Every candidate for Fellowship shall make application to the Committee on Nominations, such application to be presented and endorsed by a Fellow having a competent knowledge of the applicant If this Committee shall report favorably thereon to the Society, the candidate shall be balloted for, and the approving votes of three fourths of the Fellows present shall be necessary to his admission " The application must be accompanied by the initiation fee, which is returned if the candidate be not elected In the *Transactions* of that Society for 1885 I find that 105 new members were thus elected at the last annual meeting Now, if this method of electing members of the State Society is successful in Virginia, why should it not also succeed in Illinois and other States, and in the American Medical Association? It may be said that it is not so desirable to increase the membership of the Societies as to get *good* men into them I do not believe in the "holier than thou" sentiment The Societies are for all reputable phymicrobe, and vice versa According to MM Ferrán and Pauli, the cause which determines immunity and that which occasions death are one and the same, and is essentially of a chemical nature, consequently immunity is in reality nothing more than a certain habit or state of the system which may be obtained by purely chemical agents

In his report for the past year, Dr Béclard, the Dean of the Faculty of Paris, makes the following statement The average number of students has been about the same as that for the last few years, viz, 4000 Of this number there were 103 women, among whom there was one Indian, one Turk, three Austrians, eight French, and seventy-six Russians During the last seven years only eighteen diplomas were issued to doctoresses, rather a small number in proportion to the number of lady students who took out their inscriptions Dr Béclard further states that the presence of women among the students has, till now, caused no inconvenience in a disciplinarian or moral point of view Four hundred and eighty degrees of Doctor of Medicine were given to candidates of both sexes during the year

At the last competitive examination for the Externat of the Paris Hospitals there were 287 candidates, and among the successful ones I find the names of four lady students, Miss Klumpke took the ninth place in the list At the examination for the Internat, at which ninety-eight candidates were received, Miss Klumpke came out the twelfth

The English Colony in Paris has just lost one of its oldest and most respected members by the death of Dr Daniel MacCarthy, at the age of 69 years He had been in failing health for some months past, in consequence of which he had been gradually obliged to relinquish his large practice The deceased physician was the son of English parents, but he had spent the greater part of his life in France, which became the country of his adoption He took his degree in 1844 at the Paris Faculty of Medicine, and although his connections were principally French, his practice extended to the English speaking residents of Paris A B

DOMESTIC CORRESPONDENCE

BRANCHES OF THE AMERICAN MEDICAL ASSOCIATION

To the Editor of the Journal

Dear Sir —From the tone of the letters published in The Journal of February 27, especially those of Drs Hamilton and Keller, I am afraid that I did not state my ideas on this subject with sufficient clearness in my letter in The Journal of February 6 My whole object is the future good of the Association, *and therefore* of the medical profession in this country My object is *not* so much to increase the *power* of the Association, as its influence, and the further object is to organize the profession in America Dr Hamilton and some others seem to be under the impression that it was proposed to do away with the State Societies and their power altogether On the contrary, I took special pains, in my letter of Feb 6th, to keep any one from thinking that I advocated such absurdity Dr Hamilton's proposition to "simply open the doors of the Association so that its members shall include the members of affiliated State Medical Societies," etc, must be regarded, I think, as excellent

Dr Keller also seems to have mistaken my meaning when he says "I can see no other object in making the changes suggested than that of increasing our membership and strengthening or replenishing our treasury, at the sacrifice of our State Societies, which have done good work in standing as the only gates through which entrance to the Association could possibly be effected, and it occurs to me that the moment they are removed we will let down the bars to hordes of crooks and charlatans whose crookedness shuts them out of Societies at home where they are best known" I cannot see how my meaning could possibly have been so mistaken In The Journal of February 6, page 164, I say expressly "The State Society would still have control of its members" There is not a word in the whole letter which advocates sacrificing the State Societies, and not a word which can be construed to mean that the Branch system would let down a single bar to a charlatan The safeguards against crooks and charlatans would be as strong as ever, but a very large amount of red tape would be taken away from the requirements for admission to the Association when *respectable and reputable physicians* desire to enter The British Association has members who are not attached to any Branch, and the American Association has members who are not members of any State or local Society, but they are not necessarily charlatans But I hope that those who enter into this discussion in the future will at once read my letter carefully, and dispossess their minds of the idea that there is a plan on foot to relegate the State Societies to the limbo of oblivion I would have them stay just where they are, as regards all their rights and privileges The object of my proposition undoubtedly is to increase the membership of the American Medical Association, to make it more powerful for good and against evil in the profession If any one can propose a plan which will be more acceptable to the majority than the Branch system, I will certainly not raise my voice against it, but I do not see that a plan is necessarily bad because it is imported from Europe (and I am not an Anglo maniac) The plan suggested by Dr Hamilton certainly has the merit of simplicity

Finally, the differences of opinion shown in the four letters published in The Journal of February 27, shows that the subject has not been broached any too soon, for the whole matter should be brought up before the meeting in St Louis, and referred to a committee to report on at the annual meeting in 1887 And while any plan would be objectionable which would sacrifice existing organizations, a plan which would ignore them would be equally objectionable

Inasmuch as the adoption of any one of the plans proposed would necessitate a change in the Constitution of the Association, and as any proposed change must lie over for one year, the whole matter should be referred to a wisely selected committee, which should fully investigate the matter in all its bearings and aspects, obtaining, in so far as possible, the sentiment of members of State and local Societies, so as to make a complete and comprehensive report in 1887. BRANCH.

To the Editor of the Journal:

Dear Sir:—In a letter in The Journal of February 6, "Branch" opens up a very proper field of discussion in the closing paragraph of his letter on "Branches of the American Medical Association," when he says: "Any one who will take the trouble to look the matter up will be surprised to see the number of physicians in this country who do not belong to any medical organization at all. Even in some of the most populous States there are numbers of Counties without any medical society, and in many of the Counties in which medical societies exist, there are numbers of medical men who have no connection with them."

To show that this is true I need only mention the State of Illinois as a most striking example. Exclusive of Cook County there are one hundred Counties in the State, with only *seventeen* (?) County Medical Societies. These one hundred Counties have between 3400 and 3500 regular physicians, and only 417 who are members of a County Medical Society. As regards the proportion of society members in the Counties in which societies exist, the following are the figures, as nearly as I can ascertain: Adams County, 87 regular physicians and 48 Society members; Champaign, 76 physicians and 27 members; Clinton, 28 to 9; Crawford, 29 to 11; De Witt, 32 to 20; Douglass, 31 to 19; Jersey, 17 to 6; Macoupin, 56 to 32; Madison, 67 to 26; McLean, 83 to 57; Montgomery, 36 to 13; Ogle, 33 to 16; St. Clair, 79 to 27; Stephenson, 36 to 19; Vermillion, 80 to 43; Winnebago, 51 to 22; and Woodford, 23 to 22. Seventeen Counties, therefore, with 844 regular physicians, have only 417 society members (this is as near as I can approximate without late returns). There are 911 regular physicians in Cook County, 812 of whom are in the city of Chicago. Of the 99 outside of the city 8 are members of the County Medical Society, 6 are members of the State Medical Society (2 of whom are members of the County Medical Society), and 3 are members of the American Medical Association. There are, then, 87 regular physicians in Cook County, outside of the city who are not members of any medical organization. Of the 812 in the city only 302 are members of the County Medical Society. As the transactions of the Illinois State Medical Society for 1885 has not yet been published I have not been able to ascertain the number of members in the State Society, but I may safely say that there are not 1000 members. From the "Medical Directory" it appears that only 96 of the 812 in the city are members of the State Society.

It must be admitted that this is an exceedingly poor showing. It may not be worse than that in some other States, but at the same time it is bad. It shows that there must be something radically wrong with the societies or with the doctors—and we can scarcely believe that the great majority of our medical men are at fault. In order to join the British Association or one of its Branches the candidate must be recommended as eligible by three members, and he may be elected a member by the *General Council* of the Association, or by any recognized *Branch Council* (the name of the candidate seeking election by a Branch Council must be inserted in the circular calling the meeting at which he seeks election). Red tape is thus reduced to a minimum, and yet there is no more probability of a bad man getting in than into one of our State Societies. It seems absurd to keep a man out of a State Society—or out of the American Medical Association (as was the case before the meeting in 1884)—because he does not or can not attend the annual meeting at which he seeks election. In 1885 my name was placed before the Chicago Medical Society for two reasons: I wished to be a member of the local Society, and I was anxious to join the State Society at the Springfield meeting. I was told that there would be no difficulty in being sent as a delegate from the Chicago Medical Society. There was no want of time, for the State Society was not to meet for about six or eight weeks. After my name got into the hands of the Committee and before the Society, the business of the Society hung fire, meeting after meeting, in order that some quarrel might be "investigated." The result was that my name, and those of several other applicants for membership, remained unacted upon, and I could not join the State Society.

In many respects the "delegate system" is simply a nuisance, a seemingly nicely devised plan for keeping out men who cannot attend a meeting or who are not members of a local society. And when, as is the case in Illinois in so many counties, there is no County Medical Society, hundreds and hundreds of physicians may be kept out of the State Society altogether. Having heard that the "delegate system" is not in force in the Medical Society of Virginia, I find the following regulation for the admission of members in the Constitution of that Society: "Every candidate for Fellowship shall make application to the Committee on Nominations, such application to be presented and endorsed by a Fellow having a competent knowledge of the applicant. If this Committee shall report favorably thereon to the Society, the candidate shall be balloted for, and the approving votes of three fourths of the Fellows present shall be necessary to his admission." The application must be accompanied by the initiation fee, which is returned if the candidate be not elected. In the *Transactions* of that Society for 1885 I find that 105 new members were thus elected at the last annual meeting. Now, if this method of electing members of the State Society is successful in Virginia, why should it not also succeed in Illinois and other States, and in the American Medical Association? It may be said that it is not so desirable to increase the membership of the Societies as to get *good* men into them. I do not believe in the "holier than thou" sentiment. The Societies are for all reputable physicians, and each should be considered reputable until he shows that he is not, when he may be easily removed This is certainly much better than keeping a man out because he *may* not be all that is desirable

In this connection may be mentioned the following propositions which the secretaries of the county societies in Ohio have been asked to bring before the societies 1 To so change the constitution of the State Society as to make the members of the county societies members of the State Society simply by virtue of their local membership 2 Present members of the State Society to remain members without reference to membership in local societies 3 All members to stand upon an equal footing, thus doing away with the delegate system Such amendments to the constitution of the Illinois State Medical Society would still exclude very many practitioners from membership

It must seem, therefore, that the question opened by "Branch," and further discussed in The Journal, of February 27, is one of vital importance to our County and State Societies, to the American Medical Association, and to the whole profession in this country, though it is to be regretted that some of the correspondents have made it appear that "Branch" advocated supplanting or sacrificing the State Societies Their letters, written with this idea, may prejudice many against the plan proposed, even were it the best, but careful reading of his letter will show that he has not advocated any such thing One thing is very certain the profession needs more efficient and more active organization than exists at present The Association is not what it should be, nor are the State and County Societies what they should be Some organization, based on the suggestions already offered by the correspondents on the Branch question will undoubtedly make them what they should be Illinois

---

To the Editor of the Journal

Dear Sir —Two admirable letters on this subject have lately appeared in The Journal, one signed "Branch," in the issue of February 6, the other from Dr James H Parkinson, of Sacramento, California, in the issue of February 27, 1886 It seems to the subscriber that the time has come when measures should be taken tending to increase the membership of our Association, and to render it in letter what it already is in spirit, the representative body of the regular medical profession of the United States of North America How to accomplish this object has been indicated by "Branch" and by Dr Parkinson

Our country is so vast that it will not be possible for members who live in distant States to attend meetings which may be held at the extreme North, South, East or West To overcome these difficulties, the subscriber asks leave to offer some suggestions as a basis for a plan of organization which, if adopted, will place the American Medical Association in the position which that body should occupy in the medical world, and, as Dr Parkinson says, enable "the profession to express itself as a unit upon vital questions"

Suggestions —1 For the purpose of fully carrying out the objects set forth above, the United States should be divided into nine geographical sections, to be known respectively as the First or Northern, the Second or Northeastern, the Third or Northwestern, the Fourth or Eastern, the Fifth or Central, the Sixth or Western, the seventh or Southern, the Eighth or Southeastern, and the Ninth or Southwestern, Division These nine Divisions should comprise all the States and Territories, and the District of Columbia, arranged as follows

First or Northern Division, including Dakota, Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin, 8 States

Second or Northeastern Division, comprising Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, 9 States

Third or Northwestern Division, comprising Alaska, Idaho, Montana, Oregon, Washington, Wyoming, 6 States

Fourth or Eastern Division, comprising Delaware, District of Columbia, Kentucky, Maryland, North Carolina, Tennessee, Virginia, West Virginia, 8 States

Fifth or Central Division, comprising Colorado, Kansas, Missouri, Nebraska, 4 States

Sixth or Western Division, comprising California, Nevada, Utah, 3 States

Seventh or Southern Division, comprising Arkansas, Indian Territory, Louisiana, Mississippi, 4 States

Eighth or Southeastern Division, comprising Alabama, Florida, Georgia, South Carolina, 4 States

Ninth or Southwestern Division, comprising Arizona, New Mexico, Texas, 3 States

2 There should be established nine Branches of the American Medical Association, one in each of the geographical divisions These Branches should be known respectively as the First or Northern, the Second or Northeastern, the Third or Northwestern, the Fourth or Eastern, the Fifth or Central, the Sixth or Western, the Seventh or Southern, the Eighth or Southeastern, and the Ninth or Southwestern, Branch of the American Medical Association

3 The headquarters of each Branch Association should be in the most populous city in its geographical division

4 Each Branch Association should hold one meeting annually, and this meeting should not be held any two successive years in any one State belonging to its geographical division

5 No member of the medical profession should be a member of any Branch until he has joined the American Medical Association, the parent of all the Branches, and none should be eligible for membership to the American Medical Association who is not a member of his State Association

6 The officers of the American Medical Association should be A President, nine Vice Presidents, one from each Division, one Secretary, and nine Associate Secretaries (one from each Division), who should be stenographers, and a Treasurer

7 The Judicial Council should be composed as follows The President, the nine Vice Presidents, the Secretary, the Treasurer, two members from each

Division (eighteen), and one appointed at large by the President, making thirty one in all, who should manage the affairs of the Association.

8. The officers of the Branch Associations should be: A President (one of the nine Vice-Presidents of the American Medical Association), Vice-Presidents, who should be the Presidents of the various State Associations in the Division, a Secretary, and two Associate Secretaries (who should be stenographers). The President, Vice-Presidents, the Secretary and one member from each State, Territory or District, should constitute the Executive Committee or Council of each Branch Associattion and should manage its affairs.

9. The headquarters of the parent Association should be in the City of Washington, D. C., where there should be held, instead of the annual meetings, a triennial Congress of the American Medical Association, dividing the Congress into fifteen Sections as follows:

1. Anatomy, Physiology and Pathology.
2. Pharmacology, Botany, Materia Medica and Therapeutics.
3. General Medicine.
4. General Surgery.
5. Obstetrics.
6. Gynecology.
7. Pediatrics.
8. Hygiene, State Medicine and Climatology.
9. Chemistry, Toxicology and Forensic Medicine.
10. Ophthalmology and Otology.
11. Rhinology and Laryngology.
12. Dermatology and Syphilis.
13. Diseases of the Mind and Nervous System.
14. Medical Education, History, Literature and Journalism.
15. Dental and Oral Surgery.

10. Each Section should elect its own President, Vice Presidents, Secretaries and Council with due regard to representation from all the geographical Divisions.

In conclusion the subscriber suggests that the American Medical Association appoint at its next meeting a special committee instructed to frame a comprehensive plan of organization, preserving *intact* our excellent Code of Ethics, and all the by laws and special resolutions relating thereto.

ACTIVE MEMBER.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—A communication in your JOURNAL of February 6, over the signature "Branch," invites attention to a matter of peculiar interest to the medical profession of the country, namely: the discussion of measures that will more thoroughly bring together and cement the profession, advance the interests of medicine, and build up and strengthen the American Medical Association.

That the American Medical Association should be to the profession of the United States what the British Medical Association is to the profession of England, it would seem, should be the earnest wish of every true minded physician of this country, and the idea of establishing Branches, or of making every State Medical Society and every local medical organization a Branch, working in harmony and in consonance with the plans and rules of the American Medical Association, certainly appears well adapted to achieve this desirable object.

Whether the mass of our physicians are educated up to this advanced position or not, to make the plan a working success, admits of doubt, and perhaps, under existing circumstances, the better plan would be to utilize the State Medical Societies, making them, with the consent of their members, Branches of the American Medical Association. This plan is suggested by your correspondent, "Branch," and all the objections that might be raised to it fully answered.

There are two prominent purposes to be aimed at in any action that may be taken. *First*, To enlarge and make the American Medical Association a tower of strength, and to embrace in its membership every regular, respectable and intelligent physician in every State and Territory of the United States, making it a truly representative body of the entire medical profession, and the supreme authority upon all questions bearing upon the interests of medicine, and the professional and social deportment of its members. And, *Second*, The advancement of medical science and the collateral branches, and the elevation of the medical profession.

The Association, at its meeting in 1884, I believe, enacted a law or provision by which any member of a State or local medical society, if in good standing and vouched for, may become a "Member by Application" of the Association. This is surely a very broad provision, and in the right direction; and yet, somehow, the privilege is not understood or properly appreciated by the profession, judging from the rate of increase of membership since the provision was adopted. It seems to lack the attraction and force which attach to Branch organizations, and is wanting in that complement of professional work and responsibility which the latter would impose upon each member. Hence I regard "Branch's" suggestions opportune and good, and hope to see them fully discussed from now on, and brought before the Association at its meeting in St. Louis in next May.

MEDICUS.

Baton Rouge, La.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—I agree with "Branch" in his letter of February 6, as to the propriety of, in some way, popularizing membership in the American Medical Association. Give members of the profession a chance to join the Association. There are thousands who would willingly do so, but who cannot attend the yearly meeting, or cannot secure election as delegates. Under present rules only delegates, or those who live at the place of holding the meeting of the Association, can become members.

Our large institutions of learning are recognizing the necessity of extending facilities for students who desire to enter, by having examinations at other centres as well as where the college may be situated, thus saving to the applicant the expense and trouble of long journeys

There should be some regulation adopted by the American Medical Association, and widely published to the profession, whereby members of the medical profession can become members of the Association without presenting themselves in person for election Then, as members increase, the annual dues can be decreased In other words, make it easy to any reputable member of the medical profession to join the American Medical Association, and in this way there is every reason to believe it would number its members by the thousands

Very truly yours,
J H BAXTER, M D
Washington, D C , February 20, 1886

[Some communications have been received which were not accompanied by the *name* of the author We would remind contributors that the name and address must always be sent, though not necessarily for publication —ED]

ACTION OF SUBCUTANEOUS INJECTIONS OF COCAINE

TO THE EDITOR OF THE JOURNAL

Dear Sir —With the view of contributing to the knowledge of the action of subcutaneous injections of cocaine, I beg leave to submit the following observations made upon myself

Having read so much of the exhilarating and enlivening actions of cocaine and of its great stimulating power upon the cerebral nervous system, I resolved to try its effects upon myself For this purpose I administered to myself, being in good health and of usual normal spirits and mental disposition, a subcutaneous injection of ½ grain of muriate of cocaine (Merck), repeating the dose after five minutes, as no effect whatever had taken place in the interval About five minutes after the last injection I felt slight dizziness in the head, a prickling sensation in the tips of my fingers, and slight pressure in the epigastrium—all of which symptoms passed off within ten minutes I was able to continue the literary work in which I was just engaged, but with some effort I labored under slight drowsiness and my limbs became heavy The action of the heart and pulsation were rather retarded The face was pale, the sensibility of the cornea normal, that of the mucous membrane of the globe slightly reduced Pupils were regular Normal condition was reestablished after half an hour of rest during which time I had full control of my mental faculties

After an interval of four days I repeated the experiment, using at once 2 grains of cocaine for hypodermatic injection Hardly had two minutes elapsed after the administration when I felt my heart beating violently and the blood rushing to the head, which was quickly followed by a sensation of fulness and roaring in the latter and by noises in the ears There was confusion of thought and impairment of the faculty of volition A feeling of great uneasiness invaded the whole body, and slight twitching movements were felt in the toes and fingers, with a sensation of numbness The feeling of nausea and pressure in the epigastrium was very marked The acme of the paroxysm lasted for over five minutes, after which I found the face very pale and covered with cold perspiration The eyeballs were somewhat sunken into the orbit, the pupils were enlarged, but of normal reflex action and accommodative power The objects appeared slightly dim, but of normal proportions Retraction and coordination of muscles were not changed The sensibility of the cornea and conjunctiva was greatly diminished Pulse was feeble, arterial tension and action of the heart slightly reduced I felt tired and worn out, unable to concentrate my thoughts or to struggle against the creeping drowsiness Half an hour after the injection I went to bed, laboring under nausea, general prostration, and slight attack of hemicrania. Sound sleep during the whole night brought about perfect recovery

M LANDESBERG, M D
40 W 34th St , New York

THE ASSOCIATION LED ASTRAY!

TO THE EDITOR OF THE JOURNAL

Dear Sir —My attention has been called to an editorial in the *American Practitioner*, of February 20, reproduced in the *Medical News* of the 20th ult I take it for granted it was written by the senior editor, Dr D W Yandell To all those familiar with the doings of the American Medical Association this editorial will sound strangely To quote "It (the A M A) was led astray at New Orleans (Why was not Dr D W Yandell, ex President of the Association, there to keep it from being led astray?) It will doubtless be led astray again, and yet again, for designing, ambitious, selfish and industrious plotters will gather at every meeting, and opportunities for their *securing power* (italics ours) will occasionally occur " Dr D W Yandell made his first appearance as a delegate from Kentucky in 1856, then in 1857 and 1859 His name does not appear again (nor his State) till 1871, when in San Francisco he was elected President Neither his State nor he had any claims to the honor It was, so report said, due to designing, ambitious, selfish and industrious plotting that the Presidency was awarded him Since that time the senior editor of the *American Practitioner* and ex President of the American Medical Association has attended only four meetings, and since 1874 none at all With the exception of his address as President, no other contributions appear from his pen to the Association In Dr Yandell's Address (see page 103, Vol 23, Trans A M A) he says "The Association is making our profession one in heart throughout our borders" How does this comport with his ideas of 1886? He who runs can read

Does such a career entitle the ex President to read a lecture to the Association as to how it shall conduct itself? The least modicum of modesty should have taught him to *keep his say* to himself Moses did very well when he was among the people, but when he climbed the mountain to see "the promised land" his influence was gone We fear the senior editor of the *American Practitioner* was elevated too early for his years An ex-President of the Association should have some influence, and it should be in the body which has made him distinguished With many others who have known him for years we sincerely regret the position he has taken In the welfare and interest of the Association we hope to see Dr Yandell at St Louis in May next, and if his Kentucky eloquence can convince the American Medical Association that they have gone astray, we will cordially admit it We are sorry Dr Yandell has taken the course he has—we can only pity him

TRUTH

DISINFECTION OF CATHETERS

TO THE EDITOR OF THE JOURNAL

Dear Sir —Permit me in this day of "catheter fever" to offer to your readers my mode of disinfecting catheters Dr Alexander Skene says that when he cut into his catheters which had lain several days in a strong solution of carbolic acid, they still contained micrococci underneath the incrustation Taking a hint from that, I now pass through the catheter a saturated solution of iodoform in ether The ether penetrates the incrustation, carries with it the iodoform, and performs its function where liquid could not enter Yours truly,

W P SHOEMAKER, M D

Bradford, Pa , February 9, 1886

ASSOCIATION ITEMS

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo , on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By-Laws*, Article 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology —Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky , *Secretary*

Obstetrics and Diseases of Women and Children —Dr S C Gordon, Portland, Me , *Chairman*, Dr J F Y Paine, Galveston, Texas, *Secretary*

Surgery and Anatomy —Dr Nicholas Senn, Milwaukee, Wis , *Chairman*, Dr H H Mudd, St Louis, Mo , *Secretary*

State Medicine —Dr John H Rauch, Springfield, Ill , *Chairman*, Dr F E Daniel, Austin, Texas, *Secretary*

Ophthalmology, Otology, Laryngology —Dr Eugene Smith, Detroit, Mich , *Chairman*, Dr J F Fulton, St Paul, Minn , *Secretary*

Diseases of Children —Dr W D Haggard, Nashville, Tenn , *Chairman*, Dr W B Lawrence, Batesville, Ark , *Secretary*

Oral and Dental Surgery —Dr John S Marshall, Chicago, Ill , *Chairman*, Dr A E Baldwin, Chicago, Ill , *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich —Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence

WM B ATKINSON, M D ,
Permanent Secretary

1400 Pine St , S W cor Broad, Philadelphia

MISCELLANEOUS

MEDICAL SCHOOLS AND STUDENTS IN THE UNITED STATES —The Illinois State Board of Health has recently issued a pamphlet entitled "Medical Education and Medical Colleges in the United States and Canada, 1765–1885," in which the most suggestive facts revealed by tables and data are First, that the number of medical colleges has not increased during the past year, secondly, that the number of medical students and of medical graduates is decreasing, and thirdly, that there is a more marked uniformity in the requirements of colleges There are still 128 institutions for medical instruction in the

United States and Canada, the same aggregate as at the date of the last report But there were 760 less students in attendance upon, and 273 less graduates from, the sessions of 1884–85, than upon and from the sessions of 1883–84 In the United States there were 953 fewer students and 278 fewer graduates, in Canada there were 176 more students and 5 more graduates The schools are classified as follows regular schools, 101, homœopathic 13, eclectic, 11, physio medical, 1, and miscellaneous or mixed schools, 2 The number of medical students in 1882–83 was 13,088, in 1883–84, 12,762, in 1884–85, 12,002 In 1881–82 the number of medical graduates was 4555, in 2882–83, 4215, in 1883–84, 4101, and in 1884–85 only 3831 The increase in past years in students is most conspicuous in the smaller provincial schools, while in the large cities—Boston, New York, Philadelphia, Baltimore, Cincinnati, Chicago, New Orleans, and St Louis—there has generally been a decrease Thus the number of matriculants in medical schools in New York has fallen from 2209 in 1880–81 to 1829 in 1884–85 This fact may be interpreted in two ways It may either mean that the metropolitan schools are getting more rigid in their requirements, or that the provincial schools are getting to be better educational institutions We incline to the latter belief The decrease in the number of graduates, noted above, is most satisfactory, indicating as it does a recognition on the part of the rising generation of the fact that in the United States, of all professions the medical is and for years has been the most overcrowded —*The Lancet*, February 6, 1886

SPECTROSCOPY OF BLOOD —At the recent meeting of the Congress at Grenoble, says the *London Medical Record*, M Henocque explained his new method of examining the blood with the spectroscope The blood in the subungual region of the thumb is carefully examined, then the time necessary for the reduction of oxyhæmoglobin is ascertained, the blood is then placed in white porcelain capsules, when the presence of methæmoglobin can be recognized The method is clinically useful A stratum of blood is placed between thin glass slides superposed at an acute angle this arrangement is called by M Henocque a hæmatoscope It shows the necessary quantity of hæmoglobin with reference to the thickness of the strata M Henocque has recently invented a chromometric method, in which the hæmatoscope is placed on an enamelled plate, which shows directly the quantity of oxyhæmoglobin contained in the blood examined M Henocque showed thin models of hæmatospectroscopes, one very simply constructed for the use of students, and another adapted for carrying out minute and delicate researches Both instruments were constructed by M Lutz, optician, of Paris

ASSOCIATION OF PHYSICIANS AND PATHOLOGISTS —In view of the fact that each one of the natural divisions of medicine, except those of general medicine and pathology, is represented in this country by a special society, it has occurred to some members of the profession that a similar Association of Physicians and Pathologists is desirable Two preliminary meetings were held in New York City on October 10th and December 29th, respectively, at which the matter was thoroughly discussed, and, after a general expression of opinion, it was finally decided 1 To form an Association of Physicians and Pathologists, of which the number of members shall be limited to one hundred (100) 2 To hold an annual meeting in the month of June in the city of Washington 3 To hold the first meeting on Thursday and Friday, the 16th and 17th of June, 1886, with Dr Francis Delafield, of New York, as President

SAPPEY'S TREATISE ON THE LYMPHATICS —At the meeting of the Academy of Medicine, of Paris, on February 2, M Sappey presented a copy of his "Treatise on the Lymphatics," which was commenced in 1847 It consists of descriptive text and an atlas of forty-eight plates At the same meeting of the Academy he presented two quarto volumes, one of which was his "Recherches sur les Elements figurés du Sang dans la Serie Animale," the other a work relating to the respiratory apparatus of birds, and, finally, four volumes representing the last edition of his "Descriptive Anatomy"

ARCHIVES SLAVES DE BIOLOGIE —M Maurice Mendelssohn and M Charles Richet have founded a journal entitled *Archives Slaves de Biologie* It will appear every two months, and will contain original articles from scientific Sclavonic authors whose works are intelligible to their fellow countrymen only unless interpreted in another language MM Mendelssohn and Richet have had the happy idea of reproducing the valuable memoirs of eminent Sclavonic professors and scientists in a form accessible to all nations French is so generally spoken and understood throughout the civilised world, that the *Archives Slaves de Biologie* may be considered to be of universal utility

DR FILEHNE, teacher of Pharmacology in the University of Erlangen, has accepted the Chair of Pharmacology in the University of Breslau

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING FEBRUARY 20 1886

Clark, J H, Surgeon, detached from the "Hartford" on the reporting of his relief, Medical Inspector Bradley

Bradley, Michael, Medical Inspector, ordered by steamer of March 10 from New York to Aspinwall, thence to Panama and to the "Hartford" as the relief of Surgeon J H Clark

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED FEBRUARY 20 1886

Austin, H W, Surgeon, to proceed to Richford, Vermont, on special duty Feb 8, 1886

Urquhart F M, Passed Asst Surgeon, to proceed to Richmond, Virginia, for temporary duty Feb 16, 1886

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, MARCH 13, 1886 No 11

ORIGINAL LECTURES

MALIGNANT COLLOID VEGETATIONS OF THE UTERUS

A Clinical Lecture delivered in the Hospital of the University of Pennsylvania, on February 10, 1886

BY WILLIAM GOODELL, M D ,

PROFESSOR OF GYNÆCOLOGY IN THE UNIVERSITY OF PENNSYLVANIA AND GYNÆCOLOGIST TO THE HOSPITAL OF THE UNIVERSITY

The first case that I shall present to you to-day, gentlemen, is a case that has been sent to me because of difficulty in diagnosis The case has been examined by several physicians, and as there exists great obscurity and difficulty in arriving at a positive opinion, it possesses more than usual interest Such cases you will encounter, and they will puzzle you exceedingly unless you have seen such a case to guide you

The patient is over 40 years of age, she has had six children, and you see how very greatly distended her abdomen is Her menses have always been regular and during the last three months they have been very profuse Now I ask her whether she has bleeding after sexual intercourse, and she tells me that she has Why this should occur it is not hard to imagine, for it is due to the male organ impinging on diseased tissue, the blood-vessels of which, on account of the disease, are very brittle and friable, easily broken down Now at the first blush I would say that these symptoms look very much like carcinoma of the uterus Of course this hæmorrhage might be due to polypus hanging down from the os, but polypi are very unusual in women who have borne children, they are a disease of sterile women and old maids, these growths are the results of the constructive energy so great in the uterus, and which, not being utilized to construct offspring in those who are sterile and in old maids, results in the formation of such growth as polypi Well now, we have gone so far, let us look further into the case This woman complains of pain in her back and she tells us that she has a very offensive discharge from the vagina During the last three months her abdomen has swollen very much

These abdominal tumors will often bother you very greatly in diagnosis I could, of course, give you hard and fast lines, such as you read in the books, but even then you would very often go wrong Some years ago I was positive that I had to do with an ovarian cyst, and when I operated it proved to be ascites On another occasion when I was equally sure of a cyst, after working for half an hour I found that I had to do with a renal cyst This woman has been several times tapped on the supposition that she is suffering from ovarian cyst Now by vaginal examination I have detected carcinoma, which I believe has extended upwards until there is, so to speak, a saddle-bag carcinoma lying over across the spinal column, pressing on some of the large blood-vessels thereabouts and giving rise thus by interference with the circulation to the fluid in the abdomen Now what would point to ascites and what would point to ovarian cyst? In the first place we must make this examination under great disadvantages, owing to the distended condition of the abdomen But we note that the abdomen is less prominent, less distended in its most prominent part than it would be if the fluid were encysted When the fluid is free to move, it sags down more or less to the sides, while if encysted it would project more prominently in front, when free it bulges more on the sides If the fluid is ascitic we will have resonance in front, because the intestines, containing gas, will float on the surface of the liquid, but look out here, for if the accumulation be very great the intestines may not get all the way up hence we may have as we do have here, dulness at first, but on deep pressure we secure resonance Also there may be adhesions that will bind down the intestines, and in this way we will also have dulness If ascitic we will have dulness in the flanks, for here the fluid comes to the surface It may happen that in ovarian cyst the intestines will get in front of the cyst, and in such an event we will have resonance, so that you see how much confusion we may have in arriving at a conclusion

The crucial test will be in making an incision and drawing off some of the fluid Before making the incision I will deaden the sensibility of the part by applying to it a piece of ice, on which I have put some salt I choose the linea alba as the site of the incision, because it is free from blood-vessels, laterally we might wound the epigastric artery or some of its branches, and this accident is by no means a trifling one But you cannot always select this point, and the rule is to tap wherever indications demand without reference to the blood-vessels When this case was previously tapped, after a time the fluid seemed to be arrested and it ceased to flow through the canula, which caused the gentleman who had the case in charge to think that it was an ovarian cyst, well, now, there may be a cyst here, but if there is I am of the opinion that there is also ascitis I have seen cysts that were caused by, or at least consecutive upon, sarcoma, but they do not, as a rule, accompany carcinoma The fluid of ascitis is usually clear and of a straw color, but it may be slightly tinged with green, that from an ovarian cyst is generally darker, it is often chocolate colored, but here again I must caution you, for we may have blood in ascitic fluid, when it will be somewhat darker in color

Now I have introduced my trocar, but the fluid comes through the canula only in drops, what is the matter? I must have struck a solid portion of the growth, there is some bleeding, but the flow of liquid is greatly obstructed There must be here a growth of great magnitude, for you see I introduced the aspirating needle some distance above the pubes Now I move the canula about and I get a somewhat lighter fluid There certainly must be ascitic fluid around this growth, the needle was passed into the growth and now when I move it around I get the surrounding fluid This fluid is so thick, so glue like, that I am inclined to think that we have here a colloid If you cannot withdraw this fluid by the aspirator or by the trocar, what can you do? Why, if you consider it wise, make an incision and turn it out, but it would hardly be wise to resort to such a procedure in this case, when we know that the woman has carcinoma Now you see this fluid oozing out when I remove the canula, it will continue to ooze for some time When she coughs you notice the fluid flows more freely, this is because the coughing throws the liquid in front of the growth, and it thus more readily escapes It is always best when you start to remove a collection of fluid to remove it all before you stop, and not leave any to ooze out That should be the rule in all tappings, but especially in the case of ovarian cysts, for if the fluid is allowed to ooze out it may set up a severe inflammation, and very serious results may ensue Therefore I would condemn as a bad plan that, which you will often hear recommended, of inserting a hypodermic syringe into an obscure tumor and removing some of the fluid for examination Through this very minute opening sufficient fluid may escape to cause a fatal peritonitis Now that it is a good rule, it is not so important where the fluid is ascitic, but it is a good and safe rule to follow in all cases of fluid accumulations, for even in ascitic collections the oozing fluid may light up an erysipelatous inflammation at the point of emergence

Of course it is not always that you can completely evacuate a fluid collection, but when you can, always do so In the case of a thick colloid it is obviously impossible to do so I prefer always to avoid tapping for ovarian cysts, preferring greatly to perform the operation of ovariotomy Remember when you do tap, first to benumb the surface with ice and salt, second, to select the linea alba if possible, and third, if you happen to wound a blood vessel, to be prompt in your measures for relief I prefer to use the aspirator rather than the trocar, for this very reason, that I think there is then less danger of wounding the vessels If, an hour or two after the tapping, the woman is pale and weak, looks as though she were losing blood, you have grounds to fear that you have wounded a vessel in the abdomen or in the sac Then pick up a bunch of the abdomen about the point of incision, transfix it with a long needle and pass around this a figure of eight, on the supposition that the vessel that has been wounded is in the abdominal wall But suppose the symptoms of hæmorrhage continue after this procedure, what must you do? You must then conclude that you have wounded a deep vessel, from which internal hæmorrhage is taking place, and the only thing you can do is to proceed at once with the operation

You may ask me now why I do not cut down here and empty out this colloid mass I answer, because there is here the complication of extensive malignant disease, and I feel satisfied the woman's days are numbered This malignant disease, I believe, involves the broad ligament, ovaries, and fundus of the uterus I would not be at all justified in operating in such a case I cannot say positively why this fluid failed to come through the canula, but I am inclined to think that there are extensive adhesions between the tumor and the abdominal wall at all points but one, and that my needle failed to strike that one point

To go back to my remarks about tapping, there is one exception to the otherwise absolute rule not to tap in ovarian cysts, and that is to be found in cases of women who have heard that some neighbor has been greatly relieved by tapping, such women will not listen to the radical operation, will insist upon tapping, and in such cases you will have to yield to their importunities Still further, when the tumor is flaccid and there is very marked fluctuation, from which you infer that the wall of the cyst is very thin and it is not pulled down, you may tap under the assumption that it is a parovarian cyst, located in the broad ligament, on one side or the other These parovarian cysts are not uncommon, and tapping is a perfectly justifiable method of treating them, for in fifty-five per cent of the cases there is no return. I really believe that in the aggregate the tapping of ovarian cysts is a more fatal performance than is the operation of ovariotomy Take, for instance, one hundred cases of tapping and an equal number of ovariotomies, and I believe we will have a greater proportion of deaths in the former *This is due to* the fact that you cannot always tell beforehand what kind of a fluid you have to deal with, suppose you have a colloid cyst and you let some of this fluid out into the peritoneal cavity, you will be very likely to have a fatal peritonitis Here is some parovarian fluid that I removed in 1881 You see how clear and limpid it is, it is almost like water, but in *ovarian* cysts the fluid, as I have said, and as you see in this sample, is darker in color (chocolate colored) and more irritating to the peritoneum Again, the danger is not only from fatal inflammation, but if it does not go that far it is at least very likely to cause annoying adhesions Again, it is not uncommon to have one large cyst and grafted on to this numerous baby cysts. In the radical operation these babies are so small that they do not complicate the removal of the parent cyst, but it is a fact that when you tap and remove the fluid from the mother cysts, these babies take on rapid growth, and when you finally come to operate a much larger incision will be required to remove the disease than would have sufficed in the first instance.

To go back again, I would say that wherever we have a wound of the surface from which blood or bloody fluid trickles, we are then very likely to have erysipelas. In my younger and less experienced days I was wont to resort, in cases of dropsy from heart or kidney disease, to a method that you will see every now and then recommended, of puncturing, with a bistoury, the dropsical limb. It was supposed to let the fluid drain away and thus afford the patient relief. So it will, but in very many cases it will cause erysipelas of the part, hence I have given up this practice. Another serious objection to all kinds of tapping is that the fluid re-accumulates very rapidly. I have seen it re-accumulate in an ovarian cyst, after tapping, at the rate of more than a pound a day, which you must remember represents an immense waste of strength, for this fluid is very rich in nutritive material. So, in conclusion, I would again say that, in dropsies, it is best not to tap.

VEGETATIONS OF THE UTERUS

Here is a woman who was sent to my office a few days ago for an opinion and treatment. She is 36 years old, has had six children and one miscarriage, that occurred thirteen months ago, when she was four months advanced in pregnancy. Her menses have been regular, but for the past three months the flow has been very profuse. She now loses blood when she moves about, and is very much reduced in strength in consequence, but I do not think the hæmorrhage alone has been sufficient to account for the loss of strength. Upon examination, I find a slight laceration of the cervix, the uterus is a little prolapsed, and when I pass the sound it measures only three inches. I can find no tumor either with my finger in the vagina or by external examination over the abdomen. Why then does she bleed so? My inference is that since there is no tumor the hæmorrhage must be due to vascular vegetations in the cavity of the uterus, yet the organ is not large enough to give me the idea that they are very abundant, for if they were the sound ought to give me a measurement of at least three and a half inches, whereas it gives only three. However, I am going to scrape or curette the uterus and we will see what we get.

You notice that blood oozes from the vulva, the passage of the sound has caused hæmorrhage. Why do I think there are vegetations here? Because I find this laceration of the cervix, for such a laceration is very likely to cause vegetations, since it is a source of irritation, and thus invites blood to the part. Now I prefer to use a sharp curette. I can accomplish more with it, but I advise you to use the dull instrument until you have become proficient in handling it. You see I use only two, or at most three, fingers in handling it, if I were to grasp it roughly with my whole hand, as you would be apt to do until you have acquired dexterity, I would likely do the womb some injury. Yes, I am right, here you see these vegetations that I have scraped away. When the woman first came to me complaining of hæmorrhage I was inclined to think that it was probably due to the retention of some of the products of conception, left behind at the time of her miscarriage, for I misunderstood her broken English (she is a German), and supposed that the miscarriage had occurred only three months ago, but when I found that thirteen months had elapsed I abandoned this idea, for if a decomposing mass had been retained for that length of time the evidences of septic infection would have been more marked. I find most of these vegetations in the cornua. I feel the grating, and now I have removed a great many very small ones. This scraping will often put an end to what has been a persistent and annoying hæmorrhage for years, but let me urge upon you not to promise too much. This is a failing of young men, early in their career, they take a roseate view of everything and promise so much that they are frequently doomed to disappointment. Say you are hopeful, or are quite confident that you will be able to afford relief, but do not absolutely promise, leave promises to quacks, for this is their stock in trade.

At the present time I am being very much bothered by a correspondence with a lady who contemplates having her cervical canal dilated. I performed this operation on a neighbor of her's, who suffered terribly from dysmenorrhœa, and as this lady is similarly afflicted she thought to have the same operation performed. She desires the operation, but is very nervous about it. After writing and asking me all manner of conceivable questions, I finally received from her, yesterday, a letter in which she bluntly asked me whether there was the slightest danger in the operation. Now what was I to say? All I could tell her was that I have performed the operation some two hundred odd times, and that I have never yet had any serious results. I could not promise absolutely that there was no danger at all. You cannot make such a broad promise about any operation, even of the most trivial nature, if you do, you will often get caught in very unpleasant positions. Suppose you are attending a case of typhoid fever and you make a positive promise that the patient will get well, and he dies, there will be in the family a revulsion of feeling that will make it very disagreeable for you. You will be sometimes asked, as I have been, whether the simple passage of the uterine sound can be attended with any danger. I used to answer this question in the negative, but since the occurrence of a fatal peritonitis, in a case where I simply passed a sound, without lifting the uterus at all, I have become much more conservative in making promises. A celebrated New York gynecologist once introduced a pessary, as the result of which a furious inflammation was developed and the patient nearly lost her life. On one occasion I scraped away some vegetations from the uterus of a bride, who was suffering severely from menorrhagia, the parts were so small that I was obliged to dilate with sponge-tents before I could introduce the curette. In two days she was dead. The fatal result in this case I attributed more particularly to the sponge tents, and I have abandoned their use, resorting to the dilator when I find the parts too small to admit the curette. I would say, but I would not promise, that there is very little risk in curetting, if the patient keeps her bed for awhile and is careful. Now after scraping, I swab out the uterus with tincture of iodine, which is antiseptic and also completes the destruction of those vegetations which my instrument has bruised but not removed.

These cases of unexpected death are most distressing. Suppose I remove a cancer of the womb and the woman dies, the result is not shocking, for it is a result to be feared, and besides it is only a question of time when the disease would have killed her. But if death ensues from such an operation as curetting or dilatation of the cervix, both resorted to not for the relief of conditions that endanger life but merely to make the woman more comfortable, it is truly shocking. But in all my curette operations, I have never had serious results save only in the case referred to, and where, as I said, I laid the blame on the sponge tents.

We will keep this woman in the hospital until all soreness has gone. We will take her temperature three times a day, and the moment there is any rise we will give her an opium suppository. I cannot tell you how much faith I have in the power of opium, given early, to check the occurrence of inflammation about the female pelvis. In puerperal women, after doing well for two, three or four days after labor, they may wake up some morning with severe pain in the abdomen and the temperature up to 103° or 104°. This means a commencing inflammation of the broad ligament, and it can be nearly always checked in its incipiency by a suppository of opium, so that if a puerperal woman has an intelligent nurse, I am in the habit of leaving some opium suppositories, to be used if these conditions develop. If you can give a hypodermic it will check it even more rapidly. Here also does quinine come in well, and I would give from five to ten grains at a dose, repeating it until the head is affected. The ice cap to the head and the ice cap to the abdomen must not be neglected. I always use it to the head if the temperature gets up to 101°, and if above this point, to the abdomen as well. If there is moderate soreness I apply a poultice. There is one other remedy in which I have great faith, namely, digitalis. After putting ice on the head and stomach, I give ten drops of the tincture of digitalis every hour, and increase it to fifteen or twenty drops if it does not bring down the pulse and temperature. It may irritate the stomach, but I have never seen other toxic symptoms, as the effect on the head will warn us in time when to stop its use.

ORIGINAL ARTICLES

THE MECHANICAL TREATMENT OF THE VOMITING OF PREGNANCY[1]

BY JOSEPH TABER JOHNSON, M.D.,

OF WASHINGTON, D.C.

The vomiting of pregnancy is a condition which the physician is frequently called upon to relieve, and in the great majority of cases he is either successful in his treatment, or the patients get well by themselves. There is, however, a small proportion of cases which are not curable by any treatment short of the complete removal of the cause, and a still smaller number which resist all treatment, abortion included, and finally starve and die.

In that class of cases usually referred to as the "uncontrollable vomiting of pregnancy," the books tell us that nearly every remedy named in the materia medica has been employed in the vain attempt to cure. *Some* of these sufferers are *relieved* by treatment; *some* for a time seemed to be cured, while the trouble recurs later on; *others* are not benefited by any drug, and are sick from almost the first to the last days of gestation, but not severely so, and, as above stated, some die, either from the direct results of the continued vomiting, or from some intercurrent affection set up or aggravated by it. While in all cases the vomiting is caused by the pregnancy, this cause does not operate in the same manner in all persons, inasmuch as remedies which seem to cure some have no effect upon others, or upon the person cured in a subsequent pregnancy. For instance, *drugs* which relieve certain nervous and emotional women do not relieve patients who are not nervous or emotional, or when the special cause resides in an anteflexed or retroverted uterus, a granular os, or a rigid cervix. So that any suggestion which gives promise of aid in this distressing class of cases would naturally attract attention, and should be given an opportunity, at least, to prove its right and title to a place upon the list.

Before referring to special modes of treatment, I wish to briefly draw attention to a few statements bearing upon the mortality of this affection, partly by way of apology for occupying the time of this Society with a subject which is usually, and perhaps too often considered one of the trivial or slight ailments of pregnancy. That in certain rare cases of this disturbance, which have been called sympathetic by some, emotional by others, and reflex by all writers the vomiting has become so dangerous to life as to demand relief at any cost, we have abundant evidence in recent journal literature and text books upon midwifery. It is rare that fatal results follow these annoying symptoms. It is perhaps not within the experience of a single member of this Society that death has been the direct result of the uncontrollable vomiting of pregnancy, as it is called, and yet we have altogether too numerous examples of the mortality accompanying this condition. Thus, Barnes[2] says that in a far larger proportion than is commonly accepted death is the termination, unless averted by abortion "It is impossible," he says, "to state the cases numerically, but every author of experience gives examples of fatal cases The danger of the affection is sometimes doubted, and this doubt, founded on subjective ignorance, is urged as a plea against the induction of labor" McClintock, with a very moderate amount of research, says "I have been able to collect close on fifty authentically recorded cases, and I know of others which have not been published We ourselves have seen nine fatal cases"

---

[1] Read before the Medical Society of the District of Columbia on February 10 1885.

[2] Barnes's System of Obstetric Medicine and Surgery, p. 274.

Lusk, in the last edition of his now famous work on Midwifery, says (p 126) "In general, with severe cases, the prognosis is bad," and quotes from Joulin, who has recently reported 121 cases, with forty-nine deaths Without treatment, of fifty-seven cases twenty eight were fatal, with treatment, where abortion was induced, of thirty six patients nine only died By the method of artificial interruption of pregnancy, McClintock reports in thirty six cases the saving of twenty-seven lives

Grailey Hewitt, in a recent paper upon this subject, states that "numerous cases have been recorded during the last fifty years in which death has resulted from, or in connection with, the excessive and severe vomiting of pregnancy" He says that "the largest number of fatal cases observed by any one individual is twenty, and that since the practice of inducing abortion has somewhat increased in dangerous vomiting, the number of fatal cases has decreased"

As the advocates of the mechanical mode of treatment almost deny the agency of the stomach in the vomiting of pregnancy, and claim that the administration of medicines *per ovum* or *per rectum* is of no avail, and are consequently worse than useless —as they consume valuable time—I thought that it might be profitable to consider in a group by themselves the principal mechanical methods in the practice of which drugs are excluded as unnecessary I do not intend, therefore, to open up the entire question of the causation and treatment of this subject, which has recently been discussed in our Obstetrical Society, but to confine this discussion to the consideration of what I call its mechanical treatment

As I recently had an opportunity of testing the merits of Copeman's method by dilating the *cervix uteri* for the relief of an aggravated case of gravid nausea and vomiting, I have written out the main points of the case, which are as follows

Case—Late in the evening of January 7 I was called by telephone to see Mrs X, on account of uncontrollable vomiting which had resisted all treatment for more than a month Her husband gave me the following history of the case, as near as I can recollect it His wife had missed her period just two months For the first three weeks she had not suffered unusually, but after that time her sickness increased, and from troubling her in the morning, it gradually became worse until, at the end of her first month, she was vomiting throughout the entire day, and it soon became so constant that she found no relief at night Indeed, after another week it was worse at night than during the day For a month a physician had been in attendance, and part of the time two They did everything they could with medicine to control the vomiting, but without success From thirty to forty different remedies were tried, but the vomiting continually grew worse Finally, Mr X informed me, the doctors thought everything had been accomplished which lay within the power of drugs, and fearing the lady would die if not soon relieved, they suggested that an abortion be induced in order to save her life This suggestion was agreed to, and several ounces of ergot were administered, only to be vomited as soon as swallowed, and without producing any other effect So the patient was one day placed in position with her buttocks at the edge of the bed, and "some fluid was injected with a small syringe into the uterus" This produced little or no result The husband got the impression, from some consultations he partly overheard between the physicians, that doubt was entertained whether his wife was pregnant at all He felt certain that she was, and was exceedingly anxious about the result He informed me that he called at his physician's house, and after waiting some time, not finding him at home, wrote him a long letter expressing his views of the case, and announced his intention of changing physicians and courteously requested his bill

After this statement I took charge of the case and examined his wife I found the pregnant uterus somewhat prolapsed and anteverted I corrected this displacement by digital manipulation, but as no relief followed, I directed the patient to take absolutely nothing into her mouth, and that she be fed entirely by the rectum I also directed that she have, in addition to her milk and beef-tea, large doses of the bromide of potassium with a little brandy and about 10 drops of laudanum, to prevent rectal irritation, every four hours—a mode of practice inaugurated and often successfully carried out by a distinguished member of this Society, Dr S C Busey

When I called on the morning of the 8th I found that my directions had been strictly obeyed, but the patient was no better Indeed, she had vomited all night, and some of the time had been quite delirious She had a dry, brown tongue, and a cadaveric odor to her breath She had been in bed four weeks, and both wife and husband asserted positively that for a month no food had been retained, and for the week previous to my seeing her she had taken nothing but ginger ale Her condition and appearance confirmed this statement Her face was somewhat swollen, but her body and limbs were greatly emaciated She had been unable to get out of bed for two weeks, and had the greatest difficulty in raising herself on her elbow to vomit, and some of the time the vomited matter was caught on towels as it was ejected from the side of the mouth I persisted for twenty four hours more in the use of remedies, mostly by the rectum, but had small powders of calomel, oxalate of cerium, ingluvin, bismuth, and finally morphine, in turn placed on her tongue The vomiting went on just the same I told the husband there was one other remedy which I wished to make use of, introduced and successfully practised by Copeman, of Norwich, England, and if that was not successful I would ask for counsel, and if agreed to, would put an end to the pregnancy, as I believed his wife would soon die if not relieved.

Perhaps at this point I should state that less than three years ago she had gone through with a somewhat similar experience, and had been under the care of a number of our best physicians. As the vomiting was not controlled, several changes had been made, and I am informed that all the physicians in attendance had considered her dangerously ill—although the vomiting continued until the birth of the child, which was thought to have occurred prematurely. She was kept alive for three or four months on rectal alimentation, and I am informed that her physician told the husband that his wife had made a very narrow escape, and that if ever she became pregnant again she would be very likely to die. How much of this statement is correct, I am unable to say, but the wife and the husband told me at different times and separately that her recovery was very slow, and that when she was finally able to ride out she was taken over to the Smithsonian Institution and was weighed with all her heavy wraps on, and then only weighed seventy six pounds, though her usual weight was 140. It was the belief of both Mr. and Mrs. X. that the patient had lost at least fifty pounds in the past month. I could readily believe this, as she was very thin, and the skin hung in loose wrinkled folds about her legs and arms.

In the *British Medical Journal*, for May 15, 1878, Dr. Edward Copeman published an article entitled "Dilatation of the Os Uteri for Vomiting in Pregnancy," in which he claimed that most, if not all such cases could be cured by the dilatation of the muscular fibres of the neck of the uterus—including those of the internal os in cases in which a less dilatation failed. In this paper he relates a number of successful cases. Several papers soon followed confirmatory of Dr. Copeman's practice, in British and American journals, notably one from Marion Sims, in 1880, and published in the *Archives of Medicine* for that year, and one by W. Gill Wylie, in the *Medical Record*, of Dec. 6, 1884. The recent works of Lusk and Barnes recommend this practice as a proper and justifiable mode of treating these cases. I therefore felt that I was warranted in giving it a trial, and after fully explaining to the husband and wife what I proposed to do, with their consent, on the morning of January 10 I dilated the cervix uteri with my finger. I found it impossible at first to insert my finger, and therefore, fixing the cervix with a fine tenaculum, I expanded the fibres of the external os with the blades of Bozeman's uterine dressing forceps. I then proceeded with my finger, and with a pushing and boring motion stretched the cervical canal until it admitted my index finger to the internal os, but not through it. I found tight, unyielding circular bands at the external os, and also near the internal os, which finally gave way. There were but a few drops of blood, and those came from the puncture of the tenaculum.

I continued the rectal injection of food, and when I called in the evening I found that the patient had vomited but once, and that she was feeling very comfortable, and much encouraged. The vomiting was occasioned by the drinking of a tumbler full of milk just before my arrival. The stomach had been perfectly quiet since the dilatation; the patient began to feel hungry, and, thinking herself cured, indulged in this full glass of milk, with the result stated. She vomited none that night, and the next morning could take food without the least nausea, but she soon began to have pains, and by night regular uterine contractions set in, and by midnight of the 12th instant she miscarried a two months fœtus. The next day she ate freely of lamb chops and milk toast, and has not vomited since, and was soon up and walking about the house.

The theory of Copeman, that this form of vomiting is produced by the failure of the rigid fibres about the internal os, and in the cervix uteri, to soften and dilate under the influence of advancing pregnancy, finds some confirmation in the occurrence of nausea and vomiting which so frequently occur to women in labor. As uterine contractions occur and continue, producing the physiological softening and dilatation necessary for the passage of the child through them, repeated vomitings take place. This has been considered so usual and necessary an accompaniment of the average normal first stage of labor, that in cases where the dilatation was very slow or would not begin, nauseating remedies have been frequently prescribed with the hope of facilitating this process. In that form of dysmenorrhœa, also, where there is a hard, unyielding, narrow cervix, nausea and the most violent and distressing vomiting may precede and accompany the menstrual periods. I have recently cured some of these cases by Goodell's method of rapid dilatation of the cervical canal, and the vomiting disappeared also.

In referring to the usefulness of Copeman's method, Dr. Gill Wylie says: "If there is a doubt about the amount of dilatation, the best test is to put the patient on her back, and when the index finger up to the first joint can be easily passed into the cervix, the dilatation is sufficient. Before resorting to abortion in any case where dilatation up to the os internum failed, I would first dilate the os internum and wait long enough to see if it would stop the vomiting, for this can be done in some cases without abortion necessarily following.

"*Conclusions*.—1. That nausea and vomiting, or morning sickness in pregnancy, should not be considered and treated as merely one of the symptoms of pregnancy, but, as a rule, as indicating an abnormal condition of the tissues of the cervix uteri, due to imperfect development, disease, or the effect of disease on the tissues of the cervix.

"2. That any pathological state which interferes with the softening and other changes which the cervix undergoes during pregnancy, may cause nauseal vomiting.

"3. That in most cases relief is obtained by freely dilating the cervix uteri below the os internum, and in many instances it is the only means by which relief can be had. It is true that inducing abortion will give relief, but to accomplish this the cervix uteri must be dilated.

"4 That in many cases specific medicines given by the mouth are useless, and, as a rule, should not be used until a local examination is made and the indications for local treatment ascertained "

In Vol XXVI of the Trans of the Obstetrical Society of London, page 273, is a very elaborate article by Prof Grailey Hewitt, in which he sets forth at great length his views as to the causation of the vomiting of pregnancy He claims that all, or nearly all cases are produced by the ante displacements of the gravid uterus, and cites the histories of many patients who were successfully treated by a restoration of the uterus to its normal position, requiring none of the medicines usually prescribed subsequently Hewitt combats the theory of Horwitz, of St Petersburg, who, in a recent paper, gave the histories of ten cases of the severe or uncontrollable vomiting which he accounted for on the ground of a degeneration of the uterine tissues resulting from a mild form of congestion and inflammation Hewitt contends that the histories given by Horwitz plainly show that in his cases there was a displacement of the uterus, which could have been restored by appropriate mechanical treatment, and thus cured of a very dangerous malady Notwithstanding the best attention was given by Horwitz, three of his cases died and several aborted

Though Grailey Hewitt would approve the induction of abortion in order to save the life of his patient, and has several times practised it, yet he thinks that this very disagreeable procedure would not be forced upon us if more attention was given to the position of the gravid uterus, and its displacements corrected by appropriate mechanical support He has devised an instrument which has an exceedingly appropriate name, inasmuch as he calls it his "cradle pessary," in which the fœtus is probably rocked to sleep while listening to the swish swash of the bag of waters, and the gentle murmurs of the umbilical cord *and placental souffle*

The discussion of Hewitt's paper was participated in by some of the best talent in the London Obstetrical Society—calling to their feet such men as Playfair, Braxton Hicks, Barnes, Galabin, and others, who, while they accused Hewitt of riding a favorite hobby rather hard, generally agreed that many cases of gravid nausea and vomiting could be cured by a replacement of the gravid uterus—while it was the general view, also, that this mode of treatment was not so universally demanded as the distinguished author of the paper imagined Cases were cited by Hicks and others in which replacement of the uterus did not control the *vomiting, and still* other cases where severe vomiting occurred entirely independent of any gravid displacement It was conceded, however, to be a very valuable mode of treatment in appropriate cases Incidentally the Copeman method was generally endorsed Several cases were cited, however, which terminated as mine did where it was practised Grailey Hewitt refers to the history of one case quite similar to the one which forms the basis of this paper, in which he replaced the anteflexed gravid uterus and dilated the hard rigid cervix at the same time There was an immediate arrest of the vomiting which was seriously threatening the patient's life, but two days subsequently she aborted

I may refer here to a case I saw several years ago, where a lady was suddenly attacked with the most intractable, constant and uncontrollable vomiting I ever saw She was not relieved by anything I did during the greater part of three days and nights Finally I obtained the key to the situation when informed that she was possibly ten weeks pregnant with her first child, and that the vomiting promptly set in after she had climbed with a party of friends to the dome of the Capitol I immediately asked for an examination, which was at first refused, but when informed that relief to her constant and increasing suffering might be obtained through information thus gained, objections were withdrawn I found the gravid uterus much displaced and anteverted, and at once replaced it with my finger The relief was instantaneous She did not vomit again, and could eat without trouble from that time on

Dr H F Campbell, of Georgia, who was elected President of the American Medical Association at the meeting recently held in this city, in a paper covering 120 pages, presented to the American Gynecological Society at its last meeting, also held in this city, agrees with Grailey Hewitt that the vomiting of pregnancy is produced by gravid displacements, but differs from him as to the mode of treatment Dr. Campbell asserts that the genu pectoral posture is the safest and most successful method of mechanical or any other treatment Ten years ago the celebrated author of this elaborate paper called attention to this subject, and in addition to the treatment of "gravid nausea," as he calls it, proposed to treat all cases of uterine displacement except inversion by placing the woman in a position where the laws of gravity would be reversed By drawing back the perineum the air rushes into and balloons the vagina, and as the intestines sag downwards and forwards, the uterus gravitates or swings into place, thus overcoming its displacement In cases in which serious jamming or impaction occurs, and slight adhesion takes place, he assists the uterine replacement by the fingers or by pneumatic or hydrostatic pressure A Barnes's dilator or Braun's colporynteur is placed in the rectum or upper part of the vagina, and inflated with air or water, the impacted organ pried out of its bed, and thus assisted to swing down into position

In most cases it is only necessary to place the patient in the true genu-pectoral posture to accomplish the result desired When re-position is thus effected nausea ceases, medication is avoided, and the patient is fed by rectal alimentation until the stomach sufficiently recovers its tone to receive and digest food It may be necessary to practice replacement several times before a complete cure is effected Campbell relates a number of cases cured in this way without drugs, and states that many medical friends in his part of the State are succeeding in curing gravid nausea by his method While the impacted pregnant uterus is often lifted out of the pelvic cavity and above the s p by the aid of some of the same forces which are employed by Campbell, their mode of employment differs, and the object differs In one case it is done simply to overcome the impaction which, if left uncured, would result in a fatal interference with vital functions; in the other, before such interference would occur from the size of the uterus, to cure the nausea resulting from such displacement. Campbell closes his paper in the following words: "Believing, as I do, that gravid displacement is indeed the true source of all the observed histological alterations in the gravid uterus, and also that this gravid displacement is, as I have said, the *fons et origo* of the gravid nausea, I must urge as my first and last expedient for the relief of all these common evils arising from a common cause, repeated postural pneumatic reduction in the genu pectoral position."

In the *London Lancet*, for February, 1878, Dr. M. O. Jones, of Chicago, published a paper on "Vomiting in Pregnancy," and advocated in certain cases the local application of nitrate of silver to the os uteri as a cure. This mode of treatment could not have originated with Dr. Jones, as Dr. Marion Sims reported a case a number of years prior to Jones's paper, in which he cured a noble lady in Paris who had been given over to die by a number of eminent physicians who had religious scruples against the induction of abortion. Sims reports that from the first application the relief was marked, and that in a few days she was completely cured. The recovery was heralded as little less than a miracle. I have had one such case, and was greatly surprised by my perfect success in curing a patient who had been confined to bed for two weeks, vomiting everything she would eat, until finally the smell of food caused emesis. She was very weak, and considerably emaciated. She had taken many different remedies with no benefit. Injections of the bromide of potassium did no good. She was kept alive, I believe, by the injection of food *per rectum*. The efforts to vomit continued, and were not relieved until the nitrate of silver was applied. She immediately became better and the vomiting soon stopped, and she finally gave birth to a fine healthy child. I saw this case in consultation with Dr. S. L. Cook, no Capitol Hill.

The last mode of mechanical treatment to which I shall refer is the artificial induction of abortion, and I refer to it in the same spirit in which I should refer to the last resource of our art in that very distressing class of cases which demands from the physician the performance of craniotomy in order to save the life of the mother. In both cases I should feel much regret that the obstetric art had failed in its high and holy mission, and was shorn of its crowning glory in falling short of delivering a live child from a live mother. In both cases I should accept this sacrificial practice only as a last resort, after all substitutes and alternatives had failed or were inapplicable—and in both cases I should in all conscience side with Barnes when he says that "a law of humanity, hallowed by every creed and obeyed by every school, tells us, where the hard alternative is set before us, that our first and paramount duty is to preserve the mother, even if it involve the sacrifice of the child." In this "last extremity of our art and the forlorn hope of the patient," as Professor Davis calls it, my experience is limited to the case related here this evening, and in this instance the abortion was unintentional and therefore accidental.

In those rare cases in which every other means had failed, including the mechanical methods which I have mentioned in this paper, and I was impressed with the conviction that the woman would die if not relieved, I should call a consultation, and unhesitatingly recommend, and if agreed to perform, artificial abortion. The exact mechanical methods I am fortunately not familiar with inasmuch as I have never yet seen a case where I thought it necessary to resort to this mode of treatment. The case narrated, of Mrs. X., came the nearest to it, and as the Copeman method in my hands and the hands of others has in several instances produced this result, I should recommend the dilatation of the cervix with an instrument or the finger up to the internal os, and if the vomiting was not arrested, and other means had failed, I should suggest that the internal os be dilated, and if pains did not soon come on, to pass a flexible bougie up to the fundus uteri between the membranes and the walls of the uterus. All means likely to lacerate the tissues—and among these I should include sponge tents—would be likely to do harm by producing absorbing surfaces and thus favoring the occurrence of septicæmia.

While I am not an especial advocate of any one of these modes of treatment as a new discovery destined to take the place of all other methods, I think that a due regard to the progress of the age and events demands of us that we consider and try the value of these comparatively new suggestions before resorting to such revolting and destructive practice as we have demonstrated in the beginning of this paper, may sometimes be required of us in order to save valuable lives entrusted to our care. When this form of mechanical treatment is agreed by competent consultants to be demanded by the sad exigencies of any case, I recommend that it should not be delayed until it is too late to save even the mother's life, as a number of cases have been recently reported where, notwithstanding the tardy removal of the cause, the patients finally succumbed. Relief came too late.

PERINEAL MEDIAN URETHROTOMY, REMOVAL OF LARGE QUANTITY OF SANDY GRAVEL, DILATATION OF URETERS, DOUBLE PYONEPHROSIS, HYPERTROPHY OF BLADDER, DEATH.

BY EDWARD HORNIBROOK, M.D.,

OF CHEROKEE, IOWA.

N. B. Batterson, æt. 51, consulted me July 17th, 1881, and gave the following history. Ancestors for several generations long lived and healthy. He enjoyed good health till ten years ago. Then had retention of urine brought on by heavy lifting. The physician in attendance retained gum elastic catheter for eight days. At the end of that time the patient passed large quantities of blood. He says that this was after, not before, removal of catheter. He has had constant vesical irritation since. Pus and mucus passed daily for first four years. He was then free from purulent or bloody urine for eighteen months For last two and a half years he has been passing bloody urine and pus at frequent intervals Hæmaturia has always occurred after lifting heavy weights, which he was often required to do in his employment as a grocer's clerk Requires to urinate every half hour, night and day Symptoms not relieved by recumbent position Has had frequent symptoms of a calculus passing through urethra, but never saw any After these symptoms he often passes large lumps of hardened mucus Has not passed catheter for last two years Bowels constipated and passages painful Prostate gland enlarged and tender Catheter passes easily, but there are two slight strictures in membranous portion of urethra Urine drawn by catheter alkaline in reaction and mixed with pus No stone in bladder

Under treatment, principally with the dilute mineral acids, benzoic acid and rectal suppositories, his condition was ameliorated until May 12th, 1885 He then complained of the usual symptoms of vesical calculus I readily detected stone, and advised operation Very offensive pus escaped during the examination After repeated trials I failed to grasp the stone with the lithotrite It was of large size and placed just above and behind the neck of the bladder, apparently lodged in a pouch from which it could not be removed He suffered little during the attempt, there was no shock, and he seemed as well as usual next day I recommended lithotomy, but the patient refused to consent to the operation

He passed from observation until October 12th, when he sent for me and urged me to undertake the operation, as his health was giving way under his constant suffering I reluctantly consented, as the urine was then strongly alkaline, contained large quantities of pus, and was horribly offensive

On October 20th, in the presence and with the assistance of several of my professional confreres, I performed the operation according to Allerton's method After dilating the prostate I introduced the scoop to dislodge the stone from the pouch in which I thought it to be imbedded, when it crumbled into small crystals On passing my finger into the bladder the whole mucous membrane seemed covered with an incrustation of this sandy gravel, which I was unable to remove without removing the mucous membrane with it I removed what I could with the scoop and irrigated the mucous membrane thoroughly with a strong stream of carbolized water By this means more than two ounces of this sandy gravel were removed Shreds of mucous membrane were also washed away

I retained a tube in the wound with the intention of practicing daily irrigation The next day the bladder was washed out till the water came away clear After a few minutes nearly an ounce of fœtid pus followed This convinced me that the pus was discharging from the kidneys, and added to the gravity of the prognosis

The washing out of the bladder was continued till November 9th, when he sank exhausted He suffered less after the operation than before

A post mortem examination was made twelve hours after death by Drs Sherman, Vail, and Burlingame, who kindly removed the bladder, kidneys and ureters for my inspection, as I was away from home at the time The walls of the bladder were an inch in thickness, the ureters both dilated so that they were at least three quarters of an inch in diameter, and there was about three ounces of pus in each kidney and its ureter

Many questions, of course, suggest themselves as to the etiology, the course of the disease, and the cause of the pathological conditions I will not attempt to theorize, but merely state the facts, leaving each reader to make his own deductions

Cherokee, Iowa, February 3d, 1886

MEDICAL PROGRESS

Increase in Number of White Corpuscles in the Blood in Inflammation, Especially in those Cases Accompanied by Suppuration —At the meeting of the Royal Medical and Chirurgical Society, on January 12, Mr T P Gostling read a paper on this subject Observations of Virchow, Nasse, and Malassez on the increase in number of white corpuscles in the blood in different inflammatory conditions were alluded to The estimations recorded in this paper by the author had been made with a Gowers's hæmacytometer, and the results were given in percentage numbers of red, and in relative numbers of white corpuscles, the normal number being taken as 1 white to 333 red corpuscles, as stated by Dr Gowers Estimations had been made in the following cases Case 1, iliac abscess, Case 2, pelvic cellulitis and probably abscess, Case 3, suppurating white leg, Case 4, suppurating tonsillitis, Cases 5 and 6, white swelling treated by the actual cautery, Cases 7, 8, 9, and 10, empyema, Cases 11, 12, and 13, phthisis, Cases 14 and 15, serous pleurisy, Case 16, lobar pneumonia, Cases 17 and 18, typhoid fever, Case 19, acute rheumatism In the iliac abscess, Case 1, ten observations were made on separate days before the abscess was opened The first half of these estimations showed the relative average number of white to red corpuscles to be 1 to 160, the second half 1 to 101 The abscess was then opened, and the proportion immediately fell to 1 to 383, after which there was a slight increase and then a steady decrease to the normal proportion, as was shown by the following averages 1 to 203, 1 to 223, 1 to 252 and 1 to 358 In Case 2, which was one of pelvic cellulitis and probably abscess, there was found, for a long period, a large increase in the number of white blood-corpuscles As was shown by the averages given below, these covered a period of 84 days, and each average was made from five estimations 1 to 148, 1 to 172, 1 to 150, 1 to 158, 1 to 167 During the above period, grave symptoms existed, but on May 15th, these began to improve, and at once the relative number of white corpuscles decreased to 1 to 250, and on May 19th reached the proportion of 1 to 366 It was thought that an abscess in this case had discharged by the bowel, and if so, the sudden fall would correspond with that seen in Case 1 Analogous conditions were found in the other cases The new series of observations were from cases of phthisis (Nos 11 and 12), in both of which cavities secreting pus existed in the lung Cases of serous pleurisy, acute rheumatism, typhoid fever, pneumonia, and cauterisation, were also considered with reference to the proportion of white corpuscles The following conclusions were drawn 1 White corpuscles are increased in number in suppurative inflammations, especially when accompanied by tension 2 They are slightly increased in parenchymatous inflammations 3 They are not increased in inflammations accompanied by serous or sero fibrinous exudation

Dr Sidney Ringer remarked that Mr Gostling seemed to him to have demonstrated the increase of white corpuscles in the blood in inflammation, and of the origin of this excess there were two chief hypotheses—that they were formed in the blood itself, or that they were absorbed from the suppurating parts He agreed with Mr Gostling in inclining to the second If that were so, it led almost of necessity to the conclusion that the corpuscles multiplied after escaping from the blood-vessels Dr George Thin said that there could be no doubt that the white corpuscles, after leaving the vessels, did multiply In his own examinations of the corneæ of rabbits, published about ten years ago, he had fixed them with osmic acid, and had observed them in all the stages of subdivision and multiplication The question whether the white corpuscles were ever formed from the tissues was one of deep interest and keen controversy He did not wish to pretend to decide it, but he thought that certainly no decisive evidence had been brought forward to show that pus originated from the tissues Mr Victor Horsley thought that Mr Gostling had certainly demonstrated the important point that increase of white corpuscles was connected with tension If the question of their origin at a particular inflamed part were at issue, the first thing to do would be to compare the blood of the artery supplying the part with the blood of the vein coming from it There was no support offered by the facts of Mr Gostling's paper to the theory that pus originated from fixed tissues, and that was in accordance with Mr Dowdeswell's conclusions Dr Angel Money had made some observations on the blood in phthisis and empyema and quite agreed with the results of Mr Gostling's most laborious researches He was rather surprised that Mr Horsley should seem to overlook the possible reabsorption of white corpuscles by the lymphatics Dr S Coupland felt much indebted to Mr Gostling for his facts, but remarked that he had not made the source of the increase of white corpuscles quite clear, and that had been felt by Cohnheim to be the most difficult point Dr Douglas Powell inquired how early in the case of iliac abscess Mr Gostling had begun his observations He said that it was fifteen days before the abscess had been opened, but was it before any collection of pus could be proved to exist? That was an important point, because tension was an important factor in the reabsorption of pus Clinical experience did not find such reabsorption common Mr Howard Marsh considered that, in surgical cases, abscesses were very commonly absorbed, and sometimes very quickly M Bryant agreed on this point of surgical experience, he had certainly seen pints of pus absorbed Dr Ringer suggested that in these cases the pus cells of the abscess had degenerated and changed their character before absorption Mr Gostling, in reply to Dr O'Connor, had only to refer to the very numerous tables of his observations which were hung on the walls, and showed the number of red corpuscles as very nearly normal—if, indeed, any exact normal standard could be attained, He had found a very marked increase in the white corpuscles before any distinct evidence of abscess formation could be obtained, both in the case of iliac abscess he had observed, and also in the two cases of white swelling before they had been treated by cauterisation —*British Medical Journal*, January 16, 1886

RESECTION OF GANGRENOUS INTESTINE —Nine months ago MR MITCHELL BANKS related to the Medical Society of London a case of strangulated scrotal hernia, in which, on opening the sac, he found several inches of gangrenous intestine The sphacelated bowel was excised and the two ends of intestine were united and returned within the abdomen The patient recovered This case excited some discussion at the meeting at which it was related, and we commented on it We find that, within a few days of the reading of this paper, and before a report of it had crossed the Atlantic, a very similar operation was performed in America, and with an equally successful issue The case is recorded in the current number of the *International Medical Journal*, and was under the care of Dr Clark Stewart, of New York The published report of this case is deficient in many particulars Thus no mention is made of the state of the coil of intestine in the hernia, but only of the diverticulum, except that it is once called "diseased," and it is only from the heading of the report that we infer it to have been gangrenous Nor is there any satisfactory mention made of the state of the coverings of the hernial sac The sequel of the case is also given in a very imperfect manner In spite of these defects, however, the report is valuable, and suggests one or two points for discussion

First, as to the advantage of the operation Dr. Stewart says that out of twenty herniotomies he has seen, gangrenous gut has been found in two instances, and in both the bowel was opened and left *in situ*, "both patients dying early from septicæmia" It was this adverse experience which led him to prefer excision of the intestine when this case presented itself to him We have little doubt that in this particular instance the right line of practice was followed, for at the time of the operation the patient's pulse was only 70, and we are led to infer that there were no local conditions to render such a proceeding particularly difficult or dangerous There appears to have been just that combination of local and constitutional conditions which favors recovery after enterectomy In one particular the steps of the operation differed from the ordinary course Instead of excising a V-shaped piece of mesentery, this peritoneal fold was tied and divided close to and parallel with the bowel The advantage of this plan is that it does not interfere with the blood supply to the bowel on either side or imperil its vitality One of the great dangers attending the excision of a V-shaped piece of mesentery is the occurrence of gangrene in the bowel left behind Where the length of bowel to be removed is not great, the practice pursued by Dr Stewart is undoubtedly the best, and where a greater length of bowel has to be removed, a combination of the two plans might afford the best results, a small V-shaped piece being removed from the central part of the detached mesentery

Still more important inquiries are suggested by the subsequent treatment of the patient Mr Banks used every precaution to secure prolonged rest to the bowel, giving only ice for four days, then for eight days more ice and beef-juice, and the bowels were not relieved until the twenty third day Dr Stewart, on the other hand, gave milk after a few hours, and quickly added alcoholic stimulants and liquid food in "large amounts," while the bowels acted on the sixth day The one case was a man aged 25, the other 68, but this by no means sufficiently explains or justifies such a wide divergence in practice We must confess to being strongly of opinion that the plan carried out by Mr Banks is the better of the two, for it alone secures that rest to the injured parts which is so important in securing their speedy and firm union, and the prevention of extravasation from the intestine, with subsequent peritonitis Dr Stewart's patient seems to have been a very troublesome one to deal with, and all praise is due to the surgeon for the successful issue of the cases, but we believe that if the diet had been more rigorously restricted, and stimulants lessened or withheld altogether, the opiates exhibited would have exerted more power in restraining the peristaltic action of the intestines That, in spite of all these adverse circumstances, the stitches held, and no fæcal extravasations occurred, is a striking testimony to the skill with which the intestinal suture was made and the rapidity with which peritoneal wounds may heal —*The Lancet*, February 6, 1886

HEGAR'S SIGN OF PREGNANCY —In an article on this subject DR EGBERT H GRANDIN, of New York, says During the first six or eight weeks of pregnancy the changes in the uterus are practically limited to the body of the organ The uterine body enlarges, especially in its transverse diameter (antero posteriorly), the muscular substance becomes less dense These changes are simply the result of the hyperæmic condition into which the corpus is thrown and kept by the engrafting of the impregnated ovum As the result of such changes, the uterine body loses its nulliparous pear shape, its contour no longer gradually diminishes as it approaches the uterine neck, the body, on the contrary, bellies out (if I may use the term) over the cervix in all the transverse diameters, in particular, antero posteriorly, and the organ, instead of being pear shaped, resembles very much an old fashioned, fat bellied jug

The above changes in the consistency and shape of the body of the uterus constitute Hégar's sign, and so far, in at least a dozen cases, it has never failed me in early diagnosis The obtaining of this sign requires, of course, a certain expertness in the bimanual palpation, and familiarity with the sensation communicated to the finger by the nulliparous uterus, and the uterus altered pathologically in one or another way I have found, however, in my clinical teaching, but little difficulty in making even inexpert fingers conscious of the change In the vast majority of cases, owing to the normally slight anterior curvature of the uterus, the internal examining finger will note this sign to the best advantage in the anterior cul-de sac Here the finger, instead of following the line of the cervix in a gentle curve up on to the body, is at once conscious of the body swelling out to a greater or lesser degree, according to the date of impregnation, over the cervix, and at the same time, bi manually, the body is faintly boggy, resilient, compressible If such be the condition of affairs detected by the local examination, in the absence of rational history, in the absence of slight softening at the tip of the cervix (which may, if present, mean erosion), and of mammary signs and blue discoloration of the vagina (both of which, if present, may mean ovarian disease), I now unhesitatingly pronounce the patient pregnant The question arises, Are there other conditions which may simulate the above sign? There are two which, I can imagine, might—distended bladder and uterus distended by menstrual blood Neither of these conditions ought, however, to give rise to error, for a necessary prelude to a careful bi manual is evacuation of the bladder by means of the catheter, and retained menstrual blood in the uterus, if not accompanied physically by imperforate hymen or vagina, would necessarily be suggested by the history (no ground for falsifying here) before sufficient had collected to give rise to even faint fluctuation Hyperplasia of the corpus uterus cannot simulate this sign, because in this condition the conjoined touch reveals density, sub involution cannot, because here the uterus is increased in its longitudinal as well as in its transverse diameters, and conjoined touch, while revealing heaviness and softness, does not reveal resiliency and compressibility The markedly anteflexed corpus uteri, hyperæmic from obstructed circulation, is most likely to simulate Hégar's sign, but in case of such distortion the feeling of resiliency and compressibility is also lacking In marked retroversion this sign is likely to fail on account of the difficulty of palpating with ease the uterine body Rectal examination might assist here, but as yet I have had no opportunity to seek for this sign in case of this variety of displacement Compes (*Berlin Klin Wochen*, September 8) who, as far as I am aware, is the only observer who has published observations in regard to Hégar's sign, says that it may always be obtained to better advantage by means of the thumb in the vagina, the index in the rectum, and the other hand externally

He thus, he tells us, reaches the portio vaginalis with his thumb, places his index finger above the sacro uterine ligaments, and when the external hand depresses the fundus, is able, to better advantage, to explore the lower uterine segment I fail to see in what respect this manœuvre is superior to the vagino abdominal method which I practise, aside from my belief that it must be only very exceptionally that the thumb can reach the cervix *per vaginam* while the index is above the insertion of the posterior uterine ligaments *per rectum* —*Med Record*, Feb 27

Permanganate of Potash in Amenorrhœa — In an article on this subject Dr Fordyce Barker says In order more clearly to illustrate my views, I will divide the cases which I have treated with this remedy into three groups, mentioning them in the order of their frequency

First Young ladies between the ages of 14 and 19, who come from the country "to finish their education" Home sickness, entire change of their habits of life and associations, over-tax of their brain-power from their own or their teachers' ambition to accomplish more in a given time than they ought to attempt, not infrequently lead to an arrest of menstruation I see at least ten or fifteen such patients every winter

Second Ladies, both young and married, who suffer severely from seasickness, that have left some European port within a few days of the menstrual period With such, amenorrhœa, of longer or shorter duration, is almost sure to follow I am consulted by at least eight or ten such every year

Third Ladies between 30 and 40, generally married, some of whom have borne children, who rapidly begin to gain flesh, grow stout, while at the same time menstruation decreases in both duration and quantity, until at last it is only a mere pretense This is generally attended with annoying nerve-disturbances, pelvic weight, sometimes hæmorrhoids, and often mental depression from the apprehension of growing old prematurely

I will add, in regard to the third class in my group, that every patient was a resident of this city I presume that every medical man who has been long in practice has met with some such In all these I have known the result from personal interviews—that there has been a satisfactory return of menstruation, although in two cases the use of the remedy was continued for five months In all there has been entire relief of the cerebral and pelvic, and in some of the thoracic, nerve disturbances, cardiac and pulmonary One patient was quite cured of a periodical asthma from which she had suffered monthly for three years

Of course, I never prescribe this agent in cases where the amenorrhœa is due to some grave constitutional disease, nor do I rely on it for the relief of sudden suppression, due to cold, moral shock, or an acute disease In this class I think the pulsatilla, opiates, and local agents, such as fomentations and large hot rectal enemas, are generally successful

In my early experience I found great difficulty in getting the permanganate put up by apothecaries in such a way that patients could take it without great repugnance, and it often produced severe gastric pain, from its rapid decomposition Mr Angelo for a time put it up for me in a peculiar capsule, which did better than anything else, so far as the taste was concerned, and the pain was prevented by swallowing immediately a half-tumblerful of water, not cold Lately I have found two grain tablets do quite as well, if the same quantity of water is swallowed at once —*New York Med Jour*, February 27, 1886

Influence of Milk-Diet on the Excretion of Albumen in Chronic Nephritis—In view of the fact that milk-diet had been emphatically recommended by many observers (Senator, Sparks and Bruce, etc), Dr A S Trubatcheff (*Vratch*, No 46, 1885, p 763) undertook a series of comparative observations on four patients with chronic nephritis (three with the parenchymatous, one with the interstitial form), each of whom received ordinary hospital diet during one period, and either mixed or pure milk-diet during a subsequent period of equal duration The results were as follows 1 An exclusive milk diet invariably led to a marked increase of the daily and percentage amount of albumen in the urine 2 The patient's weight fell considerably, without any marked change in his dropsical state 3 A mixed milk diet also led, in the majority of the cases, to an increase in the daily and percentage amount of the albumen excreted 4 Neither pure nor mixed milk diet produced any marked increase in the amount of urine The author now studies the assimilation of protein by nephritic patients receiving milk diet, which study will enable him to settle the question of "good or harm" of the treatment —*The London Medical Record*, February 15, 1886

The Skin Incision in Herniotomy —Mr C B. Keetley, in a note on this subject, says It has often happened to me to be obliged to prolong the stay in bed of a herniotomy case, for no other reason than that the cutaneous cicatrix has been too tender to bear the pressure of a truss Accordingly, I have laterally incised the superficial structure at some distance external to the ring (whether femoral or inguinal) A retractor easily pulls the skin wound inwards Another advantage of this is, that the wound is removed further away from the pubic region, and therefore more readily kept aseptic To this end, I have also carried a drainage tube from the depth of the wound outwards through a special puncture a couple of inches towards the iliac spine, away from the wound The wound itself can then be completely closed with both buried and cutaneous sutures Another object to be attained by this plan, is that of avoiding the fold of the groin This, in fat people, is simply a kind of transverse gutter, which conducts freely from the pubic region outwards, under the antiseptic dressings, towards the exact site of the ordinary incision for femoral hernia Moreover, a perpendicular incision in this place always tends to gape, and opens widely if the sutures yield before union has taken place In such patients, the incision should be an oblique one, almost parallel with this fold, at all events only approaching it towards its outer end

In the *Liverpool Medico Chirurgical Journal* for January (1886), Mr Rushton Parker is reported to have said "that he made the incision in operations for hernia as far away as possible from the penis and rectum In inguinal hernia, he made the opening directly over the abdominal ring"—*British Medical Journal*, Feb 20, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications *in regard to editorial work should be addressed to the Editor*

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, MARCH 13, 1886

GERMAIN SEE ON THE TREATMENT OF OBESITY

At the meetings of the Académie de Médecine on September 29 and October 13, 1885, PROFESSOR GERMAIN SEE read an elaborate paper on "The Causes and Physiological Treatment of Obesity, the Therapeutics of Fatty Transformations of the Heart," in which his own ideas are clearly set forth, and the methods and opinions of other writers ably discussed We have already given, in THE JOURNAL of October 24 and 31, 1885, the methods used by Oertel and J Munck, and our London letter, in the issue of December 12, contained a note on the use of taurocholate of soda in the treatment of gouty obesity, as used by Dr Mortimer Granville And in THE JOURNAL of July 18, 1885, Dr Benjamin Lee gave the history of a case of obesity treated by massage

The first indication of fatty infiltration of the heart-muscle, says See, is habitual dyspnœa, due to general muscular feebleness, which incapacitates the patient for any effort, to diminution of the contractile force of the respiratory muscles, and especially to the loss of energy of the heart muscle At the first signs of fatty invasion of the heart the physician should commence treatment Everything which tends to diminish fat tends to increase the motor powers, and everything that augments *the contractility* of the voluntary muscles will at the same time awaken the action of the respiratory and cardiac muscles The fundamental indication, then, is the reduction of fat, consisting more particularly in a special regime, in the determination of the quantity and quality of the fluid ingesta, and in muscular exercise, perhaps, also, certain balneo therapeutic procedures should be added In fine, the medical treatment of cardiac steatosis consists only in combating the functional troubles of the respiration and the circulation

How may we reduce superabundant fat, especially in those cases in which the heart is infiltrated with fat? *Evidently, by the laws of experimental and* practical physiology Physiologists are agreed regarding the "ration of equilibrium," to cover the deficits resulting from continued malassimilation, either during rest or work, or from losses by heat or cold This "ration of equilibrium" is composed of 125 to 135 grammes of albuminous or nitrogenous matter, that is to say, muscular flesh containing 250 to 300 grammes of meat deprived of fat and tendinous parts A part of this may be substituted for by egg-albumen or by fish in bread we find gluten (6 parts in 100), caseine in milk (4 to 100), and leguminose in certain vegetables (10 to 100), these are the nitrogenous principles which may make up the necessary and indispensable quantity of nitrogen. In addition to the nitrogenous principles there should be 84 or 100 grammes of fatty matters, the principal combustibles of the economy Then there should be from 250 to 300 grammes of hydrocarbons, starch or sugar, without taking into account the water necessary to aid in the organic changes, and the mineral elements which enter into the composition of all the liquids and tissues, and the necessary amount of oxygen If this be the "ration of equilibrium" it is necessary to ask, What are the foods that produce obesity? When the quantity of nutriment exceeds the necessity obesity may supervene All foods may become adipogenous, not even excepting the meats and albuminous matter, as they may split up and form fat, and the other constituents of the "ration of equilibrium" may be easily transformed into neutral fats and cause obesity It may be said, then, that there are three sources of fat 1 Albuminates being split up into fat and nitrogenous matters 2 Hydrocarbons taken in certain quantity, easily decomposed 3 From fat itself

Sée takes issue with those, from Pliny to Oertel, who reduce the quantity of fluid ingesta *to a minimum* in the treatment of obesity, claiming that it is not only inhuman but unphysiological and inapplicable to the treatment of the cases under consideration Jurgensen, he says, put himself on a minimum fluid diet, and his temperature went up to 40° C, and "Zuntz asks, with reason, how a dry diet can cause emaciation, it is proved, on the contrary, that by the use of fluids the organism loses vapor of water, and also loses more heat, which causes combustion of fat" All the cases of obesity which he has treated

of grape sugar, or, may we say, to about 240 of hydrocarbons Ebstein's regimen is applicable, says Sée, to cases of cardiac obesity, on condition that it is modified according to the precepts laid down, and especially when gelatines and peptones are added, without any diminution in the fluids Gelatine, gelatinous broths and peptones contribute to the support of the forces, and economize the albuminous matters without transforming them into fat

"COAST DEFENSES AGAINST ASIATIC CHOLERA"

We have recently received from DR JOHN H RAUCH, Secretary of the Illinois State Board of Health, his "Report of an Inspection of the Atlantic and Gulf Quarantines between the St Lawrence and Rio Grande," the result of instructions given to him at the July, 1885, meeting of the State Board of Health to "inspect the methods of quarantine of the Louisiana State Board of Health and their actual operation at the stations below New Orleans, and also to extend his inspection of quarantine methods and regulations to such other ports and places as he may deem necessary in the interests of the public health of the State, with especial referenc to the exclusion of Asiatic cholera and small pox" The Illinois State Board of Health, on receipt of the first information that cholera had again invaded Europe, had taken action to secure a good sanitary condition of the territory under its jurisdiction in case cholera should be introduced, and the inspection was ordered to supplement that action "In the present epoch of quarantine," says the report, "Illinois has a direct interest—chiefly commercial—in the exclusion of yellow fever from the Mississippi Valley, in the exclusion of vaccinally unprotected immigrants at the North Atlantic ports for the protection of her own territory from small pox, and in the exclusion of Asiatic cholera generally, whether it threatens by direct importation from Europe or mediately through the West Indies, Mexico and South America In brief, the State is concerned in the condition of the sanitary coast defenses from the mouth of the St Lawrence to the mouth of the Rio Grande" If the other Sta tion could be ded that they are

tious and con-

nization of

perfect

and

try,

e

on account of the great number of emigrants constantly coming here, and the danger will be increased when the disease reaches the British Islands and those portions of the Continent whence we derive the heaviest portion of our emigration Even if we cannot shut out the cholera entirely it will be a great achievement for sanitary science if its invasion can be postponed and its spread limited, or if we can prevent its obtaining a foot hold here Our quarantine services are as yet imperfect but they have received a great stimulus since 1878, and especially during the past two years, and, imperfect as they, are they give promise of no little success with cholera, judging from the manner in which they have been tested in small-pox and yellow fever "With a sufficient number of National refuge stations, (there should be at least one on the Texas coast and one for New England, in addition to those on the Delaware Bay, Hampton Roads, and Sapelo Sound, and all of them should be as fully equipped as that at Ship Island,) with properly appointed quarantine establishments at the larger ports, and inspection stations at the smaller ones, the entire system to be mutually cooperative, governed by the same general rules and regulations, kept fully informed of public health conditions abroad by consular agents and intelligent medical inspectors when necessary, there would be no reason to apprehend the introduction of cholera or any other foreign pestilence"

In regard to the possibilities of present coast defenses, which he thinks should be under the control of the National Government, Dr Rauch says "Nevertheless, I am more convinced, since completing this inspection, that Asiatic cholera, as well as small-pox and yellow fever, may be effectually excluded from the United States by an intelligent use of the agencies at our command A quarantine of exclusion of these three diseases is now a matter of certainty, depending upon prompt notification of threatened danger, vigilant supervision over commercial intercourse with infected localities, inspection of all immigrants and the enforcement of their vaccinal protection, sanitation and purification of infected vessels and cargoes, isolation of those sick with these diseases, the surveillance of suspects during the periods of incubation, and the employment of other well defined preventive and precautionary measures which now constitute the best modern sanitary practice as applied to maritime quarantine" He well points out the different conditions which obtain in this country and in Europe regarding the enforcement of quarantine measures "There, cordons nd quarantines mean privation, misery and suffering, have been cured by the albumino fatty régime, and so far from being put on a restricted fluid diet they have had more fluid than usual, particularly aromatic cold drinks, such as tea in the morning, and slightly alcoholized cold drinks at dinner. "Digestion is thus aided, and not interfered with, as was stated at the German Congress at Wiesbaden. The fat, so rebellious to the stomach, is precipitated into the intestine, where it is emulsified, while the albuminates are peptonized. But this is not all, if water favor digestion it also hastens denutrition." See bases this assertion on the experiments of Falk, Bischoff, Foster, Genth and others on the elimination of urea after the ingestion of certain quantities of water. Water, then, he says, is not only an eliminator of pre-existing urea, but a means of increasing denutrition, and diminution of the amount of fluid taken has no *raison d'être*. He claims that water, especially when cold and aromatized, has the advantage of precipitating the alimentary mass into the intestine, where peptonization, emulsion and transformation are facilitated, but it is to be noted that the temperature of the water plays a considerable part. It was supposed for a long time that water was principally absorbed by the mucous membrane of the stomach, but that this was an error was shown by Béclard. He showed that fresh water, taken when the stomach is empty, soon goes into the intestine—that is to say, within a few minutes. It enters the circulation from the intestines, but it does not stay there, nor does it ever cause serous plethora or hydræmia, as was shown by Denis, Magendie and Nasse. But with regard to the differences of opinion as to the part played by fluids in the causation and treatment of obesity, we shall have something to say in the next issue of THE JOURNAL, as Oertel has brought an immense mass of fact and experimentation to bear on this question.

In regard to the medical treatment of obesity Sée dismisses the venesection of the sixteenth century with the remark that blood letting tends to produce anæmia and deposition of fat, as has been shown by Vulpian and Dechambre. The true medicinal treatment consists, he says, in the administration of iodides, alkalines, and purgatives. It is to be remarked that the conjoined administration of iodine and alkalines is very favorable to iodism and to great emaciation. In large doses, kept up for some time, we know that it acts unfavorably on the lymphatic, thyroid and mammary glands, and on the genital organs of man, and it is not very uncommon to see the menstrual functions accentuated when the female is under the influence of iodine. Iodine, however, is a drug to be used with extreme caution in these cases, in view of the fact that anorexia and dyspepsia are so frequently caused by it. Since the experiments of Chevreul, in 1825, and of Mialhe and Liebig, in 1850, the alkaline carbonates have been thought to be oxydants of great power, but it has been shown by Munck, Séverin, and Seegen that they cause decrease in the amount of urea eliminated. But Scheremeljewski, in order to show the action of alkaline waters on the combustion of fat, injected lactate of soda into a rabbit; he found that it caused a slightly increased elimination of carbonic acid and a more marked absorption of oxygen. It should be remembered, however, that lactate of soda itself may, by a transformation into carbonate of soda, produce a slight excess in the amount of carbonic acid exhaled and oxygen absorbed, and there is nothing to show that carbonic acid is due to the combustion of fat. We only know, then, that the alkaline waters are useful, but we do not know why; and so long as clinical experience shows that they are we should use them, with suppression of alcoholic fluids, of starches, reduction of food, aided by muscular exercise and oxygenation by living in the open air as much as possible. With regard to the purgative waters, it is only necessary to say that they seem to be superior to the purely alkaline waters. We need not mention the purgative waters of Europe, as this country is sufficiently rich in those waters to enable one to make a large choice.

We have already said that Sée has used the albumino fatty regimen in all the cases of obesity treated by him. This is a modification of the system of Ebstein, which allows 60, 80, or even 100 grammes of fat, butter or lard, a day. See adds gelatinous matter and gives a large quantity of fluid. Fatty matter of which the fat cells are not imprisoned in a too solid connective tissue is easily digested, and Ebstein has even cured cases of dyspepsia with the above named quantity of butter or lard (his own case among others). Ebstein says that fat diminishes the hunger and thirst, and limits the quantity of solid and liquid nourishment. Sée replies that it undoubtedly lessens the sensation of hunger and thirst, but he thinks that the use of fat enables the organism to take up the albuminates more completely, without which they are taken in excessive quantities, and this is a most efficacious means of economizing, as has been shown by Voit. It has been shown by Unna that on the albumino fatty diet the fat of the heart and muscles is the first to disappear, and that the subcutaneous fat disappears afterwards. Rubner has shown that 100 grammes of fat are equal, from a dynamic point of view, to 211 of albumen, 232 of starch, and 256 of grape sugar, or, may we say, to about 240 of hydrocarbons Ebstein's regimen is applicable, says Sée, to cases of cardiac obesity, on condition that it is modified according to the precepts laid down, and especially when gelatines and peptones are added, without any diminution in the fluids Gelatine, gelatinous broths and peptones contribute to the support of the forces, and economize the albuminous matters without transforming them into fat

"COAST DEFENSES AGAINST ASIATIC CHOLERA"

We have recently received from Dr John H Rauch, Secretary of the Illinois State Board of Health, his "Report of an Inspection of the Atlantic and Gulf Quarantines between the St Lawrence and Rio Grande," the result of instructions given to him at the July, 1885, meeting of the State Board of Health to "inspect the methods of quarantine of the Louisiana State Board of Health and their actual operation at the stations below New Orleans, and also to extend his inspection of quarantine methods and regulations to such other ports and places as he may deem necessary in the interests of the public health of the State, with especial referenc to the exclusion of Asiatic cholera and small pox" The Illinois State Board of Health, on receipt of the first information that cholera had again invaded Europe, had taken action to secure a good sanitary condition of the territory under its jurisdiction in case cholera should be introduced, and the inspection was ordered to supplement that action "In the present epoch of quarantine," says the report, "Illinois has a direct interest—chiefly commercial—in the exclusion of yellow fever from the Mississippi Valley, in the exclusion of vaccinally unprotected immigrants at the North Atlantic ports for the protection of her own territory from small pox, and in the exclusion of Asiatic cholera generally, whether it threatens by direct importation from Europe or mediately through the West Indies, Mexico and South America In brief, the State is concerned in the condition of the sanitary coast defenses from the mouth of the St Lawrence to the mouth of the Rio Grande" If the other States in the Union could be persuaded that they are as much interested in keeping out infectious and contagious diseases as Illinois the health organization of the country would certainly be much more perfect

In regard to the present status of quarantine and the prospects for keeping cholera from the country, Dr Rauch reminds us that this country is not yet free from danger of invasion because there is a temporary cessation of the disease in Europe The country is in danger as long as there is any cholera in Europe, on account of the great number of emigrants constantly coming here, and the danger will be increased when the disease reaches the British Islands and those portions of the Continent whence we derive the heaviest portion of our emigration Even if we cannot shut out the cholera entirely it will be a great achievement for sanitary science if its invasion can be postponed and its spread limited, or if we can prevent its obtaining a foot hold here Our quarantine services are as yet imperfect but they have received a great stimulus since 1878, and especially during the past two years, and, imperfect as they are they give promise of no little success with cholera, judging from the manner in which they have been tested in small-pox and yellow fever "With a sufficient number of National refuge stations, (there should be at least one on the Texas coast and one for New England, in addition to those on the Delaware Bay, Hampton Roads, and Sapelo Sound, and all of them should be as fully equipped as that at Ship Island,) with properly appointed quarantine establishments at the larger ports, and inspection stations at the smaller ones, the entire system to be mutually cooperative, governed by the same general rules and regulations, kept fully informed of public health conditions abroad by consular agents and intelligent medical inspectors when necessary, there would be no reason to apprehend the introduction of cholera or any other foreign pestilence"

In regard to the possibilities of present coast defenses, which he thinks should be under the control of the National Government, Dr Rauch says "Nevertheless, I am more convinced, since completing this inspection, that Asiatic cholera, as well as small-pox and yellow fever, may be effectually excluded from the United States by an intelligent use of the agencies at our command A quarantine of exclusion of these three diseases is now a matter of certainty, depending upon prompt notification of threatened danger, vigilant supervision over commercial intercourse with infected localities, inspection of all immigrants and the enforcement of their vaccinal protection, sanitation and purification of infected vessels and cargoes, isolation of those sick with these diseases, the surveillance of suspects during the periods of incubation, and the employment of other well defined preventive and precautionary measures which now constitute the best modern sanitary practice as applied to maritime quarantine" He well points out the different conditions which obtain in this country and in Europe regarding the enforcement of quarantine measures "There, cordons and quarantines mean privation, misery and suffering, and, ultimately, starvation Here, the Nation could exist unaffected in all her material interests by a quarantine whose period of detention is limited to the time necessary to destroy contagion through the rapid processes of modern disinfection and sanitation "

By far the greater part of the report is taken up with an account of the location of quarantine stations, their equipment, powers and authority, rules regulations, methods, etc , from Canada to Texas, most convenient information for those interested in the subject, and from which it is easy to form comparisons and to obtain information regarding the stations and the quarantine regulations of the different States In view of the fact that cholera was introduced into this country via the St Lawrence river in 1832, Dr Rauch makes a number of valuable suggestions in regard to the quarantine station at Grosse Island, 29 miles below Quebec, which would render the service more efficient and be in the interests of commerce Regarding the service at Boston he says "The access of cholera is hardly likely to occur During this period (nineteen years) I have been able to trace small pox cases to Boston very rarely, and none for several years recently The mothods pursued at this port demonstrate that the disease may be excluded " The *quarantine facilities of New* Haven, the most important port of Connecticut, are described as not entirely satisfactory With reference to the exclusion of cholera and small pox from the *port of New York he says "With proper vigilance*, the service should suffice to prevent either of these diseases from obtaining access to the country through this avenue But the entire system is hampered by a vicious financial policy which is, in effect, a farming-out of the service New York may exclude cholera under her present systems, but more confidence would be reposed in the result if less were demanded of professional ability, personal integrity and executive firmness in the health officer, and if the system were freed from influences which are most deprecated by those who, without prejudice, best understand them "

In the quarantine of Philadelphia, the only port of Pennsylvania, "there has been practically little change in the equipments or methods since 1818 There are none of the modern appliances for disinfection of vessels or cargo No attention is paid to the vaccinal status of immigrants unless small pox is discovered on a vessel, and, as a natural consequence, the disease has frequently been introduced into the interior through this port " At the U S Quarantine Station at Delaware Breakwater, there is no serviceable inspection boat, and no arrangements for disinfecting cargoes or clothing The quarantine season at Baltimore extends from May 1 to October 1 "No attention is paid to the vaccinal protection of immigrants, unless small-pox is discovered on a vessel, and owing to this neglect repeated introductions of the disease into the interior have occurred through this port There are no facilities as yet provided for the discharge and disinfection of cargo from an infected vessel," and Dr Rauch suggests, in the present emergency, the advisability of requiring vessels to submit to inspection by the Government service at Cape Charles The quarantine facilities of Wilmington, the only important quarantine port of North Carolina, are inadequate, and the means of disinfection primitive "The quarantine hospital was burned two years ago, and the State has not rebuilt it " Dr J T McFarland, Health Officer of Savannah, says 'I cannot refrain from an expression of condemnation and protest against the unreliability of the ordinary bills of health issued by some consuls of the United States It is a frequent occurrence that clean bills of health are issued by them at ports where deadly epidemic diseases are prevailing I know positively that steamships, from districts of Spain affected terribly with cholera, have been admitted into one of the largest ports of the United States, during this season, without the slightest attempt at fumigation of the clothing of the seamen, or cleansing of vessels, the statement being made to me in official correspondence, that as no sickness had occurred during the voyage, it was deemed unnecessary to use any precautions, and that this would be the line of action pursued in the future at that port " Dr Rauch also calls attention to the worthlessness of most consular bills of health

Taken altogether, this Report, of 31 pages, contains a very large amount of important information, and should certainly be in the hands of every health officer in the country Dr Joseph Holt's description of the manner in which disinfection is carried out at Pas a L'Outre, should be studied by all quarantine officers His report and that of Dr Swearingen, of Texas, are very complete It is to be regretted that no information could be obtained from Key West and some other places

WHAT'S IN A NAME?

Are not all the State and local Societies in the several States and Territories of the Union, that have adopted the National Code of Ethics, and consequently entitled to send delegates to the American Medical Association, actual Branches of the National organization? In the two preceding issues we have endeavored to explain the principle on which the American Medical Association was founded, its capability, when properly applied, of developing a complete organization of the regular profession in the United States, from city, county, and district societies to State Societies in each State, and from the State Societies to the National Association as the general head. The State Societies were formed by delegates from the more local organizations, and the National Association by delegates from the State Societies, the whole governed by one Code of Medical Ethics, and the governing power in all the State and National Organizations consists of delegates annually elected on a uniform ratio representation. We pointed out some imperfections in the application of the principles in the original plan adopted, and the subsequent correction of these by successive alterations or amendments as experience demonstrated their existence, and the steady progress of the organization until, at the present time, it pervades every State and inhabited Territory in our country.

With few exceptions the State Societies are sustained by delegates from the county and district societies, and the National Association by delegates from the State Societies and such county and district societies as are recognized by representation in their respective State Societies, thus making the State and local societies not only *Branches* in the true sense of the word, but *Branches* without which the National Organization, as the head, would have no existence. True, we have been calling them *affiliated* societies instead of calling them *Branches* after the British custom. Indeed, the relation between our State and local societies affiliated by a uniform ratio of delegates, with the American Medical Association, is much closer and more important than is the relation between the British Association and its Branches. While each Branch of the British Association is allowed to regulate its own affairs so long as it makes no regulation conflicting with the laws of the parent body, and to elect one member of the governing *Council*, each Branch or affiliated society of the American Medical Association is permitted to regulate its own affairs, subject only to the National Code of Medical Ethics, and instead of electing one member of the governing council it elects one delegate to the parent Association for every ten of its regular members, who constitute a part of the governing body.

But it is claimed that inasmuch as all members of the Branches of the British Association are also members of the parent Association, and thereby increase both the numerical strength and income of the latter, the same result would be reached by making all members of the Branches of the American Association also members of the latter body. The fact seems not yet generally known, as we infer from the statements of some of our correspondents, that by the amendment of the constitution of the American Medical Association, proposed in 1882 and finally adopted in 1884, any member of a State, county, district, or other local society in affiliation with the general organization can, at any time, become a Permanent Member of the American Medical Association by simply sending a certificate of his membership and good standing in the society to which he belongs, with the amount of the annual dues, five dollars, to the Treasurer of the National Association. Indeed, by this provision of the constitution every local or State Society entitled to representation in the American Association can make its entire membership Permanent Members of that Association whenever it chooses, and they will retain such membership so long as they pay the annual dues and remain in good standing in the profession, and will enjoy all the privileges that belong to Permanent Members constituted in any other way. It is doubtful whether a more simple or practicable method could be devised for increasing the permanent membership of the National Association than this. It leaves the matter to the voluntary choice of every member of the regular profession who is willing to sustain the local medical organizations of his own State, to become a member of the National Association without the expense and loss of time incurred by attending its annual meetings.

We think the appointment of a judicious committee to report on the subject, as suggested by "Branch," in his last letter, in THE JOURNAL of March 6, would be desirable and productive of good, if for no other reason than that it would make the actual provisions of the constitution of the National Association better understood by the profession generally.

DEATH OF DR. WILLIAM E. JOHNSTON.—Our foreign mails bring the news of the death of this well-known American physician, who died in Paris, where he had lived for twenty years, on February 14. He went to Europe at the close of the Civil War, and in 1866 obtained permission to practice medicine on his American degree. He was officially attached to the American Legation in Paris, and rendered great service during the siege of Paris, for which he was made Chevalier of the Legion of Honor in 1876.

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, March 1st, 1886

THE PRESIDENT, C T PARKES, M D, IN THE CHAIR

DR P C JENSEN read the first paper of the evening, entitled

DIGESTION AND DYSPEPSIA

The author entered into an elaborate discussion of the physiological processes of digestion, the departure from normal, and the treatment of gastritis, ulcer of stomach and atonic and nervous dyspepsia Owing to the length of the paper the author was obliged to omit a large portion it

DR J FRANK thought that in the diagnosis of stomach disease pain under the left shoulder would not be a pathognomonic sign in case any cardiac trouble co existed It is well known that patients with cardiac disease complain of pain under the left shoulder He had found that the majority of cases of dyspepsia are due to dilatation of the stomach and diseases of the pancreas

DR C C P SILVA spoke of the omission, among the cases enumerated by the paper, of that common form of indigestion due to the excessive use of tea or coffee, especially when the tea or coffee has been boiled for a long time and drank after all the aromatic principles have been evaporated and there is left only the tannic acid, which precipitates pepsin This is one of the most frequent causes of indigestion with ladies who abstain from cooking much and use only tea which is not freshly made, with bread and butter, taking such a lunch frequently

DR JENSEN, in concluding the discussion, said that he had found that in dyspeptic, as well as heart troubles, there is pain under the left shoulder It is a symptom of dyspepsia when other affections can be excluded As to dilatation of the stomach, it is often a cause of dyspepsia, and he had found it especially prevalent with beer drinkers who drink beer in large quantities, ten to twenty glasses a day As to disease of the pancreas being a cause of dyspepsia, it is a very obscure organ and it is difficult to diagnosticate disease in it In regard to long drawn tea and coffee being an influential factor in the production of dyspepsia, he had observed that drinking too much liquid of any kind with the food has a very deleterious effect upon the digestion, reducing the quality of the gastric secretion, and thereby hindering the proper digestion of the food

DR J H ETHERIDGE read a report of

TWO UNIQUE CASES OF VESICO VAGINAL FISTULA

In the first case the bladder appeared to be torn across from side to side about 1½ inches from the meatus urinarius, and the "flap" thus liberated was hermetically sealed to the posterior wall of the vagina The cervix uteri was completely surrounded with adventitious connective tissue, in whose meshes was retained menstrual fluid

In the second case, following a very protracted, severe labor, wherein the forceps had been fruitlessly used, and twelve hours later delivery was allowed to be spontaneously accomplished, the most extraordinary results ensued *The right ovary and uterus had completely disappeared by sloughing* The left ovary remained

THE PRESIDENT said he thought it a well established fact that there is a possibility of an accidental expulsion of the uterus and its appendages occurring in connection with labor During the past year there has been quite a discussion on the question of whether it is possible for such a thing to happen, and so far as the extract published in the *British Medical Journal* goes, it seems to prove that cases do occur in which, as far as we know, no interference with forceps or otherwise was made, and yet there was extrusion of the uterus and its appendages, and sufficient constriction thereof to produce sloughing and entire loss of these organs

DR F M WELLER remembered a case in which rupture of the bladder into the vagina occurred, and the only cause to be observed was some gravel stones found in the bladder He had no doubt that they were the result of vesico vaginal fistula

DR R TILLEY inquired if he had asked the physicians who attended these cases if forceps were used?

DR ETHRIDGE knew nothing of the antecedent histories of these patients The first was a Bohemian woman who spoke German indifferently, and it was difficult to get her history The second patient was an American-born girl, and she gave a pretty succinct history of her experience She was in labor forty eight hours, consultation being called at the end of thirty six Instruments were tried but failed to deliver her, and the physicians gave it up and went home Finally pains came on and expulsion of the pelvic contents took place

DR H P NEWMAN read a report of

A CASE OF RUPTURED OVARIAN CYST, WITH SPECIMENS

Mary H, unmarried, occupation, housework, age, 25, Norwegian Since her first menstruation at 13 years of age the menses have been regular but scanty, accompanied by severe pain, necessitating her lying in bed the first day of each period After coming to this country, four years ago, she seemed to suffer less in this respect, and while not strong, enjoyed a fair degree of health In September of last year she had a mild attack of typhoid fever, convalescing at the end of the second week During October she gained rapidly in flesh, and experienced less pain than usual at the menstrual molimen, as he afterward learned In the second week of November following she was taken ill with peritonitis It was during this attack, which was of several weeks' duration in the subacute and localized form, that his attention was first called to any abnormal condition of the pelvic organs The tenderness of the abdomen and pelvic viscera rendered a thorough exploration impossible, and it was not until January that a satisfactory examination was made

The patient first came to his office January 25th, when he found a tumor extending upward and a little to the right of the median line, from the lesser pelvic basin to midway between umbilicus and symphisis pubis, and corresponding in size and general outline to the gravid uterus at the fourth month Further investigation revealed fluctuation in the tumor, also that it was detached from the uterus, the latter being crowded to the left and back into the hollow of the sacrum Although the fluid contents were not examined the growth was pronounced a probable cyst of the right ovary, and the patient so advised To any operative procedure the patient demurred, but promised to consider the matter and report at his office the following week Nothing was heard from her until February 3d, ten days later, when he was called to her house at about 6 P M He found the patient up, but complaining of pain and soreness of the abdomen, which was slightly tympanitic Temperature 99½°, pulse slightly accelerated With the use of an opiate and hot fomentations, the following morning he found her free from pain, with less tenderness over the abdomen, and no tympanitis Pulse and temperature normal He enjoined rest in bed, and directed that he should be called in case of further trouble

On the night of February 6th he was summoned by the message that the patient was very low, and not expected to live through the night He found the patient at 11 P M bolstered up in a chair, in a crouching attitude, with the thighs flexed upon the abdomen The countenance bore such a pinched and anxious expression as gave striking evidence of grave peril He was informed that following his visit on Thursday the patient had grown quite comfortable and free from pain, and contrary to his instructions sat up a large share of Friday In the evening, while reading a letter, still sitting up in bed, she suddenly cried out that something had broken inside the abdomen She suffered great distress, and was very much prostrated until 2 o'clock A M, when she became more quiet From this time she grew weaker, and had a very "bad feeling," as she described it, vomiting at intervals during the day, but suffering no particular pain He was not called until late at night, twenty-four hours after the accident related He found a rapid, feeble pulse of 140, skin moist, extremities cool, temperature 99° F, bowels tympanitic, but no pain, and little tenderness She had passed no urine since the preceding night, and hardly a tablespoonful of dark fluid could be obtained by the catheter A digital and bimanual examination revealed little or no change in the consistency and general outline of the tumor, as far as could be ascertained through the distended abdomen

The gravity of the situation was explained to the friends, and an exploratory operation insisted upon as the only hope As immediate consent could not be obtained he advised a consultation He therefore met Dr A B Strong at ten o'clock that morning Through the stimulants which had been freely administered during the night the condition of the woman remained much the same Suppression of the urine was still a marked symptom, abdominal tympanitis somewhat increased, temperature normal The possibility of ruptured pelvic abcess, or intestinal perforation from fæcal impaction, was considered, the doctor concurring with me in urging an immediate operation As soon as arrangements could be made the patient was etherized and placed upon a table He requested Dr Strong to perform the operation The incision through the abdominal wall was about three inches in length, midway between umbilicus and pubis in the median line As soon as the peritoneal sac was opened there poured forth about three pints of purulent fluid When this had been washed away, the tumor was readily recognized filling the entire hypogastrium, its peritoneal surface engorged and discolored by the existing inflammation. Owing to the extensive adhesions, it became necessary to carry the original incision upward and through the umbilicus to a point two inches beyond, and downward to the symphisis The fundus of the tumor was firmly attached along the under surface of the mesentery, making it necessary to ligate before removal, and, on closer inspection a recently torn adhesion was observed, exposing a minute opening in the thinned wall of the sac, through which was oozing the purulent contents In this connection it should be said that since her former attack of peritonitis, the patient had complained of increasing pain on resuming the recumbent posture, a fact now easily accounted for by the extent and nature of the adhesions, which must have been thereby put upon the stretch It is also probable that while sitting up in bed, movements of the body or abdominal viscera together with the softening of adhesions by recent inflammation, had produced the rupture here found, and so perceptible to the patient The complete separation of the remaining adhesions, and the removal of its growth with the right ovary and fallopian tube, was accomplished The pedicle was tied with waxed silk, the ligature cut short and left within the pelvic cavity All torn surfaces inclined to bleed were cauterized with a hot iron The peritoneal cavity was washed out with hot water, dried with clean sponges, the wound closed, leaving a drainage tube in its lower angle, and the abdomen covered with antiseptic dressings

Notwithstanding the free use of stimulants previously to the operation, and hypodermic injections of brandy toward its completion, within the next hour the woman's pulse became hardly perceptible at the wrist, and her immediate condition critical in the extreme After the use of further injections of whiskey and ammonia, and the application of bottles of hot water to the extremities, the patient rallied slightly and recognized those about her From nine o'clock in the evening, however, she gradually sank, and died at eleven P M The abdomen was opened the next morning by Dr Strong and the writer Though covered with recent exudations of lymph, the peritoneal surfaces were of a better color, nor had bleeding occurred from any of the points of detachment.

The tumor as here presented is a unilocular, dermoid cyst, its purulent contents, about a pint and a half, resembling very much the fluid found in the pelvic cavity It also contained a mass of fatty substance bound together with a quantity of hair The right fallopian tube here attached, was uniformly enlarged and held a number of drops of pus The left ovary, which was removed post mortem, also contained a few small cysts. The uterus was normal both in size and appearance.

The points of interest are first, the disparity between the temperature noted and the extreme inflammatory changes in the peritoneal cavity, second, the difficulty in differentiating between rupture of this cyst, and a possible pelvic abscess, also the resemblance of the symptoms to those observed in a case of twisted pedicle, as reported to the society by our President, Dr. Parkes, at a recent meeting, and third, the liability of rupture of ovarian cysts even of small size, where inflammation occurs, constitutes additional arguments in favor of early operation.

DR. A. B. STRONG said he believed it was generally supposed by the profession that peritonitis is always by an elevation of temperature as indicated by the thermometer. He had recently seen a case in which a large quantity of pus was removed by section from the abdomen of a boy, in which the thermometer did not indicate any rise of temperature. These two cases seem to show that in purulent peritonitis the temperature is not always a practical aid in diagnosis, unless in a negative way.

THE PRESIDENT was inclined to think from some of the symptoms reported that this was a case of twisted pedicle, and that the rupture was caused by the twisting of the pedicle, which is quite often the result of the subsequent distension of the cyst walls, if it is weak at any point it ruptures. Darkness in color is one noticeable change found in twisted pedicle, and if this was not a case of twisting, there was great resemblance in the symptoms and those of cases he had seen, viz., rapid distension of the abdomen, increased temperature, symptoms of peritonitis, and suppression of urine. In case the ruptured cyst was dependent upon twisted pedicle it might account for the separation of the adhesion, which was found. The mere fact of the movement of the body which was advised against might have precipitated a turn of the tumor upon itself, which led to the rupture by a diffusion of blood. He thought it a very interesting case and one calling attention to the necessity of insisting upon early interference in all cases where there is a supposed tumor of the abdomen, accompanied by the symptoms mentioned. And where the operation is done early there is very little difference in the fatality as compared with the operation done without peritonitis being present.

DR. NEWMAN said, in conclusion, that he did not think twisted pedicle was present in this case. The adhesions of the upper part and sides of the tumor, were of such a nature that there could be but slight twisting of the base on the pedicle, and if it had occurred as a factor in separating the adhesions it must have returned to its normal position again, for the tumor when found, occupied its usual position.

DR. STRONG said he was sure the pedicle was not twisted. There were two points of attachment to the tumor, one adhering to the base of the mesentery on the right side, the other to the sigmoid flexure, both old adhesions, and the points of attachment so located that it would be impossible for the pedicle to be twisted.

THE PRESIDENT wished to know how the dark color was accounted for.

DR. STRONG said that it looked at first very much like a uterine tumor, being thick and vascular. It was a light mahogany color, but was not such a color as is found in a strangulated gut.

DR. J. H. ETHERIDGE said, in reference to the lack of correspondence between the temperature as indicated by the thermometer, and a high degree of inflammation, that the temperature will often be found in cases of peritonitis to be sub normal. In cases of gonorrhoea in the female, complicated by pelvic peritonitis, physicians are often misled by the fact that the inflammation which produces great pain in the abdomen is not accompanied by a temperature which would lead him to suppose that peritonitis is present, thus causing him to erroneously rule out the possibility of there being peritonitis.

DR. G. W. WEBSTER exhibited a convenient

CASE OF ANTIDOTES FOR POISONS, WITH STOMACH TUBE.

He said that in his limited experience in the treatment of patients who had taken poison either accidentally or otherwise, he had often found it difficult to procure the proper antidotes quickly enough and in a suitable form. It was this that led him to devise this case, intending at the time to have only one made for his own use. The case itself contains a pamphlet concerning poisons and their antidotes, a stomach tube, and the following drugs ether, ammonia carbonate, nitrate of amyl, apomorphia, sulphate of atropia, brandy, camphor, animal charcoal, chloral hydrate, chloroform, digitaline, dialyzed iron, sulphate of iron, tr. of chloride of iron, mucilage, calcined magnesia, sulphate of morphia, iodide of potassium, liquor potassæ, acetate of strychnia, chloride of sodium, sulphuric acid, tannic acid, sulphate of zinc. The atropia, morphia, apomorphia, strychnia and digitaline have been made up in compressed tablets and combined with soda so that they can be given hypodermically.

DR. J. FRANK exhibited a specimen of

DEGENERATED RIGHT KIDNEY,

with a brief history of the case. Thirteen weeks ago, lithotrity was attempted on a man sixty nine years old. The lithotrite broke, and the next day lithotomy was performed. The patient did well for about three weeks when he seemed to fail again, and pus appeared in the urine. Then he got better, and the pus disappeared. But a relapse came and he died. During the time he was voiding pus, Dr. Frank had made microscopic examinations to find casts, but was unsuccessful. There was total degeneration of the medulary substance of the kidney exhibited, while the other one was full of renal calculi.

THE PRESIDENT remarked that the degeneration of the kidney was so great that tube cast formation would be impossible.

DR. R. TILLEY exhibited a sample of

LANOLIN

which he obtained through favor from Frazer & Co., of New York. He said lanolin has lately been brought prominently before the medical public by the researches of Prof Oscar Liebreich, of Berlin, and its clinical applications by Liebreich and others The substance exhibited, you will observe, is of a yellowish brown color, and of a plastic consistency The upper layer is darker than that immediately beneath Its odor is slight, but *sui generis* Liebreich says it should smell like wool It is found in practically all the keratine tissues of the animal economy, but the commercial article is undoubtedly obtained from wool The sample he supposed to be a mixture of equal parts of pure lanolin and water Liebreich calls it a cholesterin fat, that is, a substance composed of fatty acid and cholesterin The more commonly recognized animal fats being, of course, compounds of fatty acids and glycerine He promises later to give us its exact chemical composition The special point of interest about it to us as physicians, is, that it seems to be absorbed by the integument with much greater facility than the substances now in general use as bases for ointments In the *British Medical Journal* of Feb 13, 1886, a number of formulæ are given, being so far, the result of Prof Liebreich's observations as to the most convenient method of associating it with other substances He there refers to several clinical cases of interest, psoriasis, favus, and eczema He regards it as an excellent base for blue ointment He claims that when a small quantity of a sublimate ointment of 1 in 1000 made with lanolin is rubbed on the skin, that in a few minutes the characteristic metallic taste of mercury appears in the mouth, and from this and other observations, concludes that all toxic agents should be used, when associated with lanolin, with great caution

CHICAGO GYNÆCOLOGICAL SOCIETY

Stated Meeting, Friday, January 15, 1886

THE PRESIDENT, DANIEL T NELSON, M D, IN THE CHAIR

W W JAGGARD, M D, EDITOR

DR CHARLES WARRINGTON EARLE read a paper entitled

THE WATERY DISCHARGES OF PREGNANT WOMEN

Case 1 —Mrs F K consulted me for a profuse watery discharge which had taken place several times during her pregnancy, commencing at the third month She was the mother of three children, and had always been free from any marked pelvic disease The first discharge was clear and watery, and she estimates the quantity at about two quarts This came away in a gush, most of it being discharged at once, although there was a slight loss for some days thereafter At first it was thin and clear, then slightly thicker, of the color of weak coffee These discharges seemed to occur every two or three weeks, and were frequently attended with considerable pain There was a decided diminution in the size of her abdomen after each discharge

On October 30th I found her in great pain, and an examination demonstrated that the fœtus was very low in the pelvis and apparently not surrounded with any liquor amnii The os uteri was neither soft nor dilated She was ordered anodynes and to remain in bed On the 7th of November I again saw her, and found she had been having more or less pains since my previous visit There was no dilatation Two days after, however, she was delivered, her gestation having lasted about two hundred days The child lived about one hour She made a good recovery and resumed her place in her family in the course of two weeks

Case 2 —Mrs M, 27 years old, in her ninth pregnancy At the end of five months she commenced to have a flow of fluid which continued until the end of the seventh month, when she gave birth to twins, one living and the other dead There was no escape of liquor amnii at her confinement The same lady in her eleventh pregnancy commenced to lose fluid at the end of the seventh month, which continued until the completion of the full term, when she gave birth to a healthy child She had what her attendants called a dry labor

Case 3 —Mrs D W R, aged 31, the mother of nine children, has been pregnant since July 1st, 1885 On November 20th she said to a friend who was at her bedside that she was flowing, and asked to be supplied with a napkin A sheet folded and placed under the patient was thoroughly saturated with fluid, the discharge being equal, probably, to about two pints She had severe pains, simulating those of labor, lasting a few hours On December 15 she had a similar discharge The future of this case is yet to be decided

Frequency —These cases evidently take place with more frequency than we have, up to this time, supposed, but the older obstetric authors have noticed peculiarities of this kind, and given very fair descriptions of the complication

Smellie says (page 177, Vol II) "Dribbling of fluid may go on for weeks, but a sudden gush is invariably followed by parturition, the longest interval between a sudden gush and labor being seven days" In this he is certainly mistaken, as the history of many recorded cases and some of mine will demonstrate

Denman, 1815, says "Instances have been recorded in which the waters of the ovum are said to have been voided as early as the sixth month of pregnancy without prejudice either to the child or to the mother The truth of these reports seems to be doubtful, because where the membranes are intentionally broken, the action of the uterus never fails to come on A few cases of this kind, somewhat similar, have occurred to me A discharge of colorless fluid takes place, daily, from the vagina for several months preceding labor, which is due to the rupture of some lymphatic Such labors are usually premature and the fœtus small" The same authority also cites a case where, after the delivery of the placenta, several pints of lymph were discharged

Burns, 1822, page 238, says that the discharges of watery fluid from the vagina are not infrequent, and generally depend upon the secretion of glands about the cervix, the rupture of lymphatics, or from fluid collected between the chorion and amnion, or water from blighted ovum in the case of twins

Dr Pentland relates a case in which coughing produced a discharge, the water being discharged at the fourth month, but labor only occurred at full term

Merriman, in his work entitled "Difficult Parturition," 1826, relates the case of a lady—six months pregnant—from whom a profuse, watery discharge occurred She summoned a physician, who assured her that if pains came on she would soon be delivered She continued, however, to the end of pregnancy, having a profuse discharge each day At full term she was delivered, her attending physician rupturing a bag of waters, which appeared in no way different from usual cases No opening was discoverable in either the placenta or the membranes, and he concluded that the discharge must have come from the outside of the membranes

Chailly, edited by Bedford, 1844, gives a rather full account of hydrorrhœa, the description not being different from those I have already related He says, however, that these discharges are more frequent than are generally supposed, but makes the erroneous statement that in nearly all these cases pregnancy is carried along to its full term

Nearly all modern authors devote a short section to the consideration of this subject, giving different names, as their ideas of its origin and pathology are different

Three separate and pathological conditions seem to be, in many cases, confounded, and I see no way by which a differentiation can be made

1st A discharge of the liquor amnii
2d Discharges from increased glandular action
3d, A possible collection of fluid between or outside of the membranes, and its irregular evacuation

In my teachings I have been in the habit of speaking of hydrorrhœa, but never, up to a few months ago, had I seen a marked case A study of this case with others collected from my own experience, and the perusal of the article written by Dr Thomas C Smith, of Washington, D C, which appeared in the *American Journal of Obstetrics*, in May, has caused me to go over the subject carefully and to present what I can obtain from the authorities in regard to these peculiar discharges Great numbers of cases have been recorded, but no one, up to this time, has demonstrated conclusively the source of the flow

The etiology of these discharges has been the subject of very different opinions by different obstetric authors Chailly says that authors have attempted to show that these discharges are due to the accumulation of fluid between chorion and amnion, to rupture of lymphatic vessels, to transudation through amniotic membranes, to rupture of the membranes at some remote point from the orifice of the uterus, and finally, to dropsy of the womb

Lusk says the pathological processes involved in the disease are vascularity, hyperæmia and hypertrophy of the interstitial connective tissue, and of the glandular elements of the decidua

Barnes, in the "System of Obstetric Medicine and Surgery," 1885, says in regard to these discharges, without entering into a critical discussion of the several theories, that it seems to be well established that there are five sources from which this fluid may come

1st A discharge from the cervical canal
2d The decidual origin
3d Transudation through amniotic membranes
4th Hydatidiform degeneration of the ovum
5th Cauliflower excrescences

The differential diagnosis must rest between the following similar discharges

From the discharge from hypertrophied cervical glands

Fluid collecting between chorion and amnion, occurring only once

Escape of fluid from amniotic cavity

I The fluid escaping from the hypertrophied glands must be small in quantity, and we would expect that it would continue for a considerable length of time There would be no diminution in the amount of liquor amnii and the child would be found floating in the usual amount of fluid

II If the fluid collected between any of the membranes, and adhesive inflammation surrounding it followed, a considerable amount of fluid might collect, and the discharges would be considerable at once, and might or might not be repeated In such a case there would be no evidence of escape of true amniotic fluid, although there might be a lessened size of the abdomen

III Where the liquor amnii escapes there would be a greater tendency to uterine contractions, a more perceptible diminution in the size of the uterine tumor, and a microscopical or chemical examination would certainly reveal some evidence of urine, as we know this exists in variable quantities in the liquor amnii

Transudation through the amniotic membrane, although recently noticed by Barnes, and mentioned by older authors, would give rise to the discharge of a very small amount of fluid

This could hardly be differentiated from a slight discharge taking place from the cervical glands Fluids discharged from hydatidiform degeneration of the chorion or from cauliflower excrescence, would be so associated with the diseases which cause them that the diagnosis would not be difficult

Prognosis —As far as my observation goes, the life of the woman is not jeopardized, but she suffers from the constant discharge and becomes anæmic The pain is sometimes severe, as I have before remarked, and the patient is full of gloomy forebodings, and anxious in regard to the final result

The fœtus is usually born prematurely, and, in many cases, only lives a short time

The treatment must necessarily be very simple—rest and anodynes being about all that can be suggested

DR H P MERRIMAN had one case of this kind about a year ago The woman had a sudden gush of water when she was not quite five months pregnant I thought it might presage labor, and told her to let me know of any symptoms of labor,—that I expected it would come on But she felt better after having had the gush of water She had, in the course of two or three weeks, another, and said she could tell when they were coming on, because she felt so full before they came When the second came I began to think that perhaps she was not going to have labor at the present time after all, that it probably was not a loss of the amniotic fluid, and I examined her and found the os not dilated I could feel, however, by carefully introducing my finger, that there was water still remaining there,—the amniotic bag remaining apparently intact I gave her opiates, thinking that labor might possibly be prevented She went along for nearly a month after that, before she finally miscarried She had three separate gushes of water at intervals of two or three weeks before her miscarriage finally came on The fœtus had perhaps a little over six months of intra uterine life at the time of its expulsion

It strikes me that we might learn by careful examination of the placenta and membranes after delivery, a great deal more than we have yet learned about this subject I cannot help thinking that there must be some defect in the fœtal envelopes to have a thing like this occur It could not have been a rupture of the amnion, but there may have been a separation between the amnion and the chorion, as I have seen in one other case in my own practice, in which the infant or fœtus enveloped in the amnion came away, leaving the chorion within the uterine cavity And we had a similar case presented to the Society a year ago, by Dr Sawyer The amnion had been separated from the chorion, and came away intact by an effusion of liquid between the chorion and amnion Now, if that takes place, why of course there may be a separation in part and then adhesion again after the occurrence of the rupture Any gush of this kind indicates, to me at least, some disturbance of the fœtal envelopes, either of the chorion or amnion, or a cystic degeneration of the placenta, and it strikes me that in every case of this kind the placenta and membranes ought to be carefully observed after the delivery, to see what pathological cause brought on the abortion

I would like to state in addition to my case, that the woman finally had her miscarriage quite suddenly I was not present, and another physician was called

The President said that he would like to ask a question as to whether there is any specific cause operative in the production of these cases? Whether syphilitic or gonorrhœal infection may have anything to do with it, and also whether inflammation of the mucous membrane of the uterus precedes these causes? Is it, in other words, an acute or chronic inflammation of the mucous membrane that causes it?

Dr Henry T Byford had nothing to add, except that Dr C R Parke, of Illinois, reported a case to him, in which the discharge of the liquor amnii took place, labor pains came on, and the umbilical cord became prolapsed He replaced the cord and gave ergot As labor did not progress, he finally gave morphia and quieted the pains In three months the woman was delivered of a living child, both did well

Dr H P Newman had seen a single case The discharge, however, was greater than in the cases related, and came on about six weeks previous to the abortion, the membranes were not examined

Dr W W Jaggard said that he had listened to the reading of Dr Earle's paper and the discussion with great interest He could not, however, agree with the author of the paper in considering the pathology of *hydrorrhœa uteri gravidi* as obscure and confused in all its details Carl Braun (*Zeitschr d Ges d Wiener Aerzte*, 1858, No 17, p 257) and C Hennig (*Der Katarrh der inneren weiblichen Geschlechtstheile*, Leipzig, 1860, p 48), had clearly and distinctly described the pathological anatomy of the condition Chronic decidual endometritis may terminate in the formation of new connective tissue, or may manifest itself by the production of a yellow, sero albuminous fluid, variable in quantity, which accumulates between *decidua vera* and *reflexa*, or when *vera* and *reflexa* are united, between decidua and chorion Carl Braun accordingly considers the condition to be a *serous endometritis* Hennig aptly terms it *catarrhal decidual endometritis* Catarrhal decidual endometritis must be distinguished from collections of fluid between the amnion and chorion, the so called amnio chorial water Bischoff has designated the unorganized, albuminous fluid uniting chorion and amnion as the *tunica media* The quantity of this fluid may increase abnormally, at the same time that its consistency is diminished McClintock describes a case, referred to by Spiegelberg, in which the amount of "amnio chorial water" was so great as to simulate hydramnios The "amnio-chorial water" may be discharged without the interruption of pregnancy, but then the discharge of fluid is not repeated, as in the intermittent discharges of *hydrorrhœa uteri gravidi* Labor always follows the rupture of the amniotic sac,—a fact which establishes the possibility of a differential diagnosis in the large majority of cases It is unusual for labor to be prematurely induced by the discharge of the "amnio-chorial water," or collections of catarrhal secretions between chorion and decidua

A condition strictly analogous to *hydrorrhœa uteri gravidi* is frequently observed in uterine fibroids The intermittent discharge of a yellowish sero albuminous fluid from the uterine cavity is a symptom of such frequent occurrence in this condition that attention is directed to it by most systematic writers

With reference to the etiology of *hydrorrhœa uteri gravidi*, there were several facts of practical import Any antecedent endometritis—gonorrhœal, syphilitic or of other origin—is an adequate etiological factor Hydræmia appears to favor the development of the condition The coincidence of hydræmia with catarrhal decidual endometritis would certainly indicate the exhibition of chalybeate tonics in the treatment of the latter affection

He fully agreed with Dr Merriman in attaching great importance to the critical examination of the fœtal envelopes in order to clear up a doubtful diagnosis

Dr Edward Warren Sawyer called attention to the fact that watery discharges from the uterine cavity frequently occurred during the *puerperium* He thought that the condition technically termed *hydrorrhœa gravidarum*, was due in all cases to the transudation of the amniotic fluid This was the opinion ably advocated by Charpentier

Dr W W Jaggard thought Dr Sawyer had not quoted Charpentier correctly Charpentier mentions Stapfer's recent monograph (*These de Concours*, 1880), in flattering terms, enumerates the various hypotheses proposed by a large number of observers, and says the German theory, already referred to, is the most probable

Dr Charles Warrington Earle had but very little to say in closing the discussion It seemed to him, however, that there was one thing, at least, that we should learn from our consideration of this subject this evening It seems to be impossible for any one to determine the exact source from which a considerable amount of fluid is occasionally discharged from the vagina of a pregnant woman We do not know whether this fluid comes from the amniotic cavity or external to it, therefore, we should not give ergot or commence the dilatation of the os uteri after a watery discharge, believing that labor must come on, because from the testimony we have received here to-night, and from other evidence, it does seem that even if the liquor amnii is prematurely evacuated in a few cases, pregnancy may go on to full term My attention has been called to the phenomenon mentioned by Dr Sawyer, and if I had not desired to make my paper as brief as possible, I should have spoken of the watery discharges which occasionally take place after labor I have never seen a case, but it is mentioned in the literature, and it is believed by those who have written upon the subject that the fluid in these cases comes from either the large lymphatic vessels, or perhaps from a continuation of the same disease which produced the discharge before Dr Sawyer is certainly not quite in accord with the majority of authorities when he says that the discharges of pregnancy always come from the cavity of the amnion

Dr Sawyer No, but the term "hydrorrhœa" should be reserved for that class of cases

Dr Earle This is not hydrorrhœa, as I understand it The term should be applied to a discharge of fluid from outside of the amniotic membrane, perhaps not from outside of the chorion, but certainly from outside of the amnion

(*To be concluded*)

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, February 10, 1886

The President, C H A Kleinschmidt, M D, in the Chair

T E McArdle, M D, Secretary

(*Concluded from page 273*)

Dr J Taber Johnson read a paper on

THE MECHANICAL TREATMENT OF THE VOMITING OF PREGNANCY

(See page 284)

Dr A Y P Garnett said that Dr Johnson had covered the ground so completely that there was not much left to be said It is evident from the paper that the weight of testimony is in favor of Copeman's method Now, what Dr Garnett desired to know, was why irritation of the os uteri should cause vomiting? How does this irritation act so as to produce vomiting? It seemed to him that the presence of the fœtus in the early months of pregnancy would have but little influence on the os And yet it is during this time that the vomiting usually occurs As the pregnancy progresses towards the later months and the os is involved, then the vomiting, as a rule, ceases of its own accord

Dr Johnson replied that softening of the neck of the uterus is one of the early signs of pregnancy In some cases, however, this softening does not occur The circular bands fail to dilate, and reflex sympathetic disturbance of the stomach is the result

Dr Garnett contended that in the second week of pregnancy, when the vomiting usually sets in, there is no necessity for a softened os Moreover, a somewhat similar disturbance of the stomach often occurs at the menstrual epoch, when the patient has a non gravid uterus He was much more inclined to adopt Grailey Hewitt's theory, and consider flexions of the uterus as a frequent cause of the vomiting of pregnancy In reply to Dr Smith, Dr Garnett said it would not militate against this theory to advance the fact that nearly every pregnant woman suffers more or less from vomiting, for may not nearly every woman have some displacement of the uterus?

Dr A F A King said he believed Copeman's method was beneficial because it relieved uterine congestion So, too, with the correction of displacements In a word, congestion of the uterus, no matter how produced, must be relieved The mode in which Copeman's method stopped the vomiting of pregnancy was by producing contraction of the womb, by which the organ was relieved of its congestion

Dr S C Busey asked Dr Johnson if the genu pectoral position is a remedy for all displacements?

Dr Johnson replied that Dr Campbell contended it is equally beneficial in all cases

Dr Busey then said that he had asked the question because he could not comprehend how the correction could be maintained in a case of anteversion after the patient had assumed the erect posture

Dr Johnson said of course some form of pessary must be applied

Dr Busey said there is more of hysteria in the vomiting of pregnancy than most medical men will admit, but less than Hewitt claims He thought the correction of displacements would relieve some forms of gravid nausea, but fail in others Copeman's method has carried many women to full term, but it does not always succeed Such a means, however, must always be considered a *dernier ressort* Perhaps Dr Johnson does Grailey Hewitt an injustice That gentleman did not state that the vomiting of pregnancy was due solely to displacements of the uterus, but to that cause and to contractions at the internal os

Dr King said the genu pectoral position would cure the displacement and thus relieve congestion It was the latter factor, in his opinion, which caused the vomiting, and Copeman's method would relieve

Dr B L Coleman, Lexington, Ky, *Secretary*
tetrics and Diseases of Women and Children —
C Gordon, Portland, Me, *Chairman*, Dr J F
ne, Galveston, Texas *Secretary*
gery and Anatomy —Dr Nicholas Senn, Mil-
, Wis, *Chairman*, Dr H H Mudd, St Louis,
ecretary
Medicine —Dr John H Rauch, Springfield,
airman, Dr F E Daniel, Austin, Texas,
y
almology, Otology, Laryngology —Dr Eugene
Detroit, Mich, *Chairman*, Dr J F Fulton,
Minn, *Secretary*
ses of Children —Dr W D Haggard, Nash
nn, *Chairman*, Dr W B Lawrence, Bates-
, *Secretary*
nd Dental Surgery —Dr John S Marshall,
Ill, *Chairman*, Dr A E Baldwin, Chicago,
tary

ber desiring to read a paper before a Sec-
ld forward the paper, or its *title* and *length*
xceed twenty minutes in reading), to the
of the Committee of Arrangements, at least
ı before the meeting —*By-Laws*

ee of Arrangements —Dr Le Grand At-
Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

Foster Pratt, Mich —Each Section shall
s Chairman and Secretary—all other nomi
be made, as now, by the nominating

N Quimby, N J—Create a new Sec-
nown as the Section on Medical Juris-

WM B ATKINSON, M D,
Permanent Secretary
, S W cor Broad, Philadelphia

ISCELLANEOUS

w FEVER COMMISSION —The unfriendly
contemporary towards the proposed
Commission" has called out an able
ving A Watson, of New Hampshire,
tinguished sanitarian, Dr Joseph
ıng extracts are taken from his
ished in the *Sanitary News*, of

d that hostile influences would
onal interests of a few were
who place selfish motives
sies before humanitarian
nge is sweeter than the
nunities from the ter-
ncompromising pes-
d surprise to have
al in a state of
ence, opposing
ability to do
publication
Journ
ch

sanctum, as well as the sacred homes of its corps of editors, unfortified against the menacing disaster—disparaging an attempt to battle the hitherto unconquered enemy, is an incongruity of action which, to professional men living beyond the borders of yellow fever invasion, can be looked upon only as being prompted by motives which are not apparent to the public Its tender regard for the $30,000 of the funds of the United States as against the happiness, comfort and lives of the people of a vast area of this republic is too unreasonable even to credit, and must be received as a flimsy screen to conceal the animus of its opposition The assertion that the investigations of Freire and Carmona are without scientific value seems to my mind little less than a distortion of facts, and unwarranted without further investigation Freire's investigations, as recorded in his voluminous illustrated report to the Brazilian government, show an amount of scientific work that places him among the first biologists of the day, and, if his conclusions are correct, as there now appears to be no reason to doubt, crowns him as the greatest living benefactor of the human race The statistical record of his vaccinations just published (1886), together with the deaths from yellow fever in Rio de Janeiro from January to August last, presents an array of facts that cannot be controverted by any method of argument

"For a publication, whatever its name or kind, pretending to wear the dress of mediocrity even, to attempt to defeat the investigations by the general government into the means and methods of saving life and of maintaining unbroken, so long as natural law has ordained, the unit of our country's strength and prosperity—the family circle—is unless some superior plan is offered with an assurance of its adoption and execution, lamentable beyond expression when viewed from the standpoint of human love or moral duty We, at the North, with our homes safe from this one monster of death, with a patriotic regard for the welfare of every community in this great sisterhood of States, and with hearts tender to the wails of distress which we have too often heard from the sorrowing homes of the sunny South, that have been stricken with this terrible disease, join with you, your associates, and the American Public Health Association, in urging the passage of the bill now before Congress This measure is supported upon the broad principle of humanity and loyalty to public interests, by men in old New England, but to see opposition to it springing up from men living in a district that has more than once been decimated by the frightful pestilence, is an anomaly which we must believe incompatible with common sense"

ASTLEY COOPER PRIZE —It is announced that the next triennial prize of £300, under the will of the late Sir Astley P Cooper, Bart, will be awarded, early in 1889, to the author of the best essay or trea-
ı "The Origin, Anatomy, Results, and Treat-
of Tubercular Diseases of Bones and Joints"
essays shall contain original experiments and
ervations which shall not have been previously

DR W W JAGGARD thought Dr Sawyer had not quoted Charpentier correctly Charpentier mentions Stapfer's recent monograph (*These de Concours*, 1880), in flattering terms, enumerates the various hypotheses proposed by a large number of observers, and says the German theory, already referred to, is the most probable

DR CHARLES WARRINGTON EARLE had but very little to say in closing the discussion It seemed to him, however, that there was one thing, at least, that we should learn from our consideration of this subject this evening It seems to be impossible for any one to determine the exact source from which a considerable amount of fluid is occasionally discharged from the vagina of a pregnant woman We do not know whether this fluid comes from the amniotic cavity or external to it, therefore, we should not give ergot or commence the dilatation of the os uteri after a watery discharge, believing that labor must come on, because from the testimony we have received here to night, and from other evidence, it does seem that even if the liquor amnii is prematurely evacuated in a few cases, pregnancy may go on to full term My attention has been called to the phenomenon mentioned by Dr Sawyer, and if I had not desired to make my paper as brief as possible, I should have spoken of the watery discharges which occasionally take place after labor I have never seen a case, but it is mentioned in the literature, and it is believed by those who have written upon the subject that the fluid in these cases comes from either the large lymphatic vessels, or perhaps from a continuation of the same disease which produced the discharge before Dr Sawyer is certainly not quite in accord with the majority of authorities when he says that the discharges of pregnancy always come from the cavity of the amnion

DR SAWYER No, but the term "hydrorrhœa" should be reserved for that class of cases

DR EARLE This is not hydrorrhœa, as I understand it The term should be applied to a discharge of fluid from outside of the amniotic membrane, perhaps not from outside of the chorion, but certainly from outside of the amnion

(*To be concluded*)

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, February 10, 1886

THE PRESIDENT, C H A KLEINSCHMIDT, M D, IN THE CHAIR

T E MCARDLE, M D, SECRETARY

(*Concluded from page 273*)

DR J TABER JOHNSON read a paper on

THE MECHANICAL TREATMENT OF THE VOMITING OF PREGNANCY

(See page 284)

DR A Y P GARNETT said that Dr Johnson had covered the ground so completely that there was not much left to be said It is evident from the paper that the weight of testimony is in favor of Copeman's method Now, what Dr Garnett desired to know, was why irritation of the os uteri should cause vomiting? How does this irritation act so as to produce vomiting? It seemed to him that the presence of the fœtus in the early months of pregnancy would have but little influence on the os And yet it is during this time that the vomiting usually occurs As the pregnancy progresses towards the later months and the os is involved, then the vomiting, as a rule, ceases of its own accord

DR JOHNSON replied that softening of the neck of the uterus is one of the early signs of pregnancy In some cases, however, this softening does not occur The circular bands fail to dilate, and reflex sympathetic disturbance of the stomach is the result

DR GARNETT contended that in the second week of pregnancy, when the vomiting usually sets in, there is no necessity for a softened os Moreover, a somewhat similar disturbance of the stomach often occurs at the menstrual epoch, when the patient has a non gravid uterus He was much more inclined to adopt Grailey Hewitt's theory, and consider flexions of the uterus as a frequent cause of the vomiting of pregnancy In reply to Dr Smith, Dr Garnett said it would not militate against this theory to advance the fact that nearly every pregnant woman suffers more or less from vomiting, for may not nearly every woman have some displacement of the uterus?

DR A F A KING said he believed Copeman's method was beneficial because it relieved uterine congestion So, too, with the correction of displacements In a word, congestion of the uterus, no matter how produced, must be relieved The mode in which Copeman's method stopped the vomiting of pregnancy was by producing contraction of the womb, by which the organ was relieved of its congestion

DR S C BUSEY asked Dr Johnson if the genupectoral position is a remedy for all displacements?

DR JOHNSON replied that Dr Campbell contended it is equally beneficial in all cases

DR BUSEY then said that he had asked the question because he could not comprehend how the correction could be maintained in a case of anteversion after the patient had assumed the erect posture

DR JOHNSON said of course some form of pessary must be applied

DR BUSEY said there is more of hysteria in the vomiting of pregnancy than most medical men will admit, but less than Hewitt claims He thought the correction of displacements would relieve some forms of gravid nausea, but fail in others Copeman's method has carried many women to full term, but it does not always succeed Such a means, however, must always be considered a *dernier ressort* Perhaps Dr Johnson does Grailey Hewitt an injustice That gentleman did not state that the vomiting of pregnancy was due solely to displacements of the uterus, but to that cause and to contractions at the internal os

DR KING said the genu pectoral position would cure the displacement and thus relieve congestion It was the latter factor, in his opinion, which caused the vomiting, and Copeman's method would relieve it when it was due to a contracted os. Dr. Johnson had done too much at one sitting. If he had dilated the cervix a little the first time, and several hours afterwards repeated the attempt, he would not have run so great a risk of producing an abortion.

Dr. Busey said that Copeman had accidentally discovered this method of relieving the vomiting of pregnancy. He intended to produce an abortion in a certain case by dilating the cervix. The patient did not abort, but the vomiting was relieved. Dr. King may not be correct in his opinion that Dr. Johnson would not have produced an abortion if he had not been so precipitate. Such a result will happen sometimes despite every precaution. The dilatation should be effective, and the physician is not responsible for the abortion. It is true that it is not necessary for the dilatation to be carried to the internal os at the first sitting. A second trial may be made some hours later.

Dr. King contended that Dr. Copeman had not dilated sufficiently to produce an abortion. Another point to be taken into consideration is the predisposition of some women to abort on the slightest provocation.

Dr. Johnson, in reply to a question by Dr. Smith, said that his patient had a prolapsed and anteverted uterus. He corrected the displacements, but with no effect on the vomiting.

Dr. Smith said it looked like a *deliberate* attempt to produce an *accidental* abortion. Dr. Johnson pulls down the uterus with a tenaculum, and after using a dilator, places his finger in the cervix and makes a "boring and forcing movement." Dr. Smith knew of no better method for producing an abortion. In Dr. Smith's experience displacements of the uterus did not seem to be a potent factor in the production of the vomiting of pregnancy. At least, the vomiting was not increased in ratio of greatest displacement. He, therefore, had no faith in Hewitt's views. He agreed with Dr. Garnett that the cervix has nothing to do with the body of the uterus until towards the end of the pregnancy.

Dr. Bromwell read a quotation from Barnes in reference to the advisability of trying Copeman's method.

Dr. J. B. Hamilton said it occurred to him that even the correction of a displacement frequently produces an abortion, especially when a pessary is used to retain the uterus—so that the criticism against Copeman's operation was scarcely a fair one.

Dr. Busey said the abortion might occur even if the pessary were not applied.

Dr. Johnson, in closing the discussion, said he could hardly believe that Dr. Smith was in earnest. Copeman's method is an acknowledged means of relief, and has received the sanction of obstetric authorities. He was inclined to agree with Dr. King that if he had dilated more slowly, and had not finished for a day or two, the result might have been different. Dr. Smith's experience with displacements was too limited to be put in opposition to the numerous recorded cases of vomiting being relieved by the correction of displacements.

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT.)

Bacterial Therapeutics—Mortality among Medical Men—Cerebral Abscess after Empyema—Portrait of William Harvey.

The theory of the survival of the fittest, and consequently that in the struggle for existence the weakest must go to the wall, has led Dr. Cantani to apply these principles in the case of one particular germ—the bacillus tuberculosus, or that which causes consumption—to be opposed by another species of germ. His idea is that of encouraging the natural warfare of the germs already noted. The battle field here is the human lung. The combatants are the bacillus just mentioned and a certain other germ known as the bacterium termo. Both combatants are well known in the field of microscopic inquiry, and the hoped for result of the battle is the rout of bacillus by bacterium, in other words, the clearance from the lung of the former and disease producing germ by one which is not disease-producing, and which in the struggle for existence will kill off its opponent. The bacterium termo is found in the ordinary processes of decay. Making sure in the first instance of his ground, Dr. Cantani, by experiments upon animals, proved that the termo could not produce disease. Next came the actual application of the remedy and the opposing of the harmless bacterium to the noxious bacillus in the lung. A consumptive patient was selected for this interesting experiment. That the case was one of true phthisis was proved in the accustomed fashion. Animals inoculated with the matter brought up from the patient's lungs developed consumption, and died of the disease in a few weeks' time. The bacterium cure is now prepared. This germ has been cultivated in a suitable medium—liquefied gelatine and meat broth. The patient is made to inhale this culture of the bacterium daily. The results are, to say the least, curious. The cough and expectoration diminish. The bacilli grow fewer and fewer, until they are no longer to be detected in the expectoration. In less than a month after commencing the inhalation the disease germs can no longer be seen, and, most satisfactory result of all, the matter from the lungs no longer produces consumption in animals inoculated therewith. In the struggle for existence the, to man, harmless germ has replaced and killed off the germ of the fell disorder.

Cantani's method has been followed out by other physicians. A Dr. Salama, of Pisa, has experimented in similar fashion. On July 17 last, the inhalations of the bacterium were commenced in the case of a consumptive patient in whom all the symptoms of the disease were unmistakably present. On August 2 the bacillus had disappeared, and the patient, as in the other case, gained strength and flesh rapidly. No one can for a moment pretend to believe that at last a sure remedy has been found for consumption, nor is this Dr. Cantani's contention. His aim is to illustrate and to apply practically a principle in biological science to the cure of disease It may be that other harmless germs will be found in the already long lists of microscopists, which will serve the purpose of soldiers fighting for health against disease even better than the bacterium termo itself It is something gained in the fight against disease to know that there is a possibility of opposing successfully one germ against another The future of medicine may include possibilities of the kind such as may throw vaccination and its concomitant practices completely into the shade At the very least it is noteworthy to observe how, from the very domain of science, which has flooded us with the knowledge of disease germs and their terrible power over human life, there comes a hopeful echo of ways and means for counterbalancing the malign influences these microscopic particles exercise on our physical well-being

The Statistical Department of the Registrar-General's Office has published some interesting facts with regard to the mortality in the medical profession According to Dr Ogle, the Superintendent, there were in 1881 no less than 15,091 duly registered medical practitioners, and it appears that the death rate is not only high, but it is also on the increase In the years 1880, 1881 and 1882 the mortality was higher than that seen in other professions It was also above the death rate exhibited by doctors for two decades or so before, it being 25 53 per thousand The worries of the law, it would appear, do not militate against forensic well being, the lawyers died during the same period at the rate of 20 23 per 1,000, and the clergy show a death-rate of only 15 93 Again, when the medical mortality is compared with the death-rate of teachers, with that of commercial travelers, or even with that of the miner and his coal dust lungs, these fairly unhealthy and very unsanitary occupations are found to present favorable comparison with the doctor's chances of old age The innkeeper, butcher, brewer, quarryman, cutler, and workers in certain other trades are behind doctors in the matter of mortality Coming to more intimate details, Dr Ogle says that some 388 deaths occur each year among the doctors of England and Wales Adding in the Scottish and Irish mortality, it is probable one may set down the number 770 as representing very nearly the total deaths of medical men per annum The causes of death per million of medical men and per million of other men, the death-rate from scarlet fever is as 59 to 16, from typhus as 79 to 38, from diphtheria as 59 to 14, from typhoid fever as 311 to 238, from alcoholism even, as 178 to 130, from suicide as 363 to 238 In the matter of suicide, self-destruction by poison is the preferential method of the profession Liver diseases kill off a moiety of the profession, and a great authority has explained this fact by a reference to the irregular dietetic habits which the business habits of a doctor induce In the matter of small pox the profession comes out triumphantly The annual death rate from small-pox among all males above 20 years of age is 73 per million Among medical men it is only 13 per million These researches show indisputably that the war against disease is one attended with risks of no mean kind, and that those who fight the battle are exposed to chances of death above those incurred by nearly all their fellows

At the last meeting of the Medical Society of London an interesting discussion took place, upon the occurrence of cerebral abscess after attacks of empyema A case was mentioned of a patient, a governess, aged 20, who had suffered from empyema which had opened spontaneously Later, however, a sinus remained, and portions of the fourth and fifth rib were excised and the pleural cavity washed out In eight days this was followed by attacks of an epileptiform character, vomiting, coma and death At the necropsy an abscess three inches long was found in the anterior lobe of the right hemisphere of the cerebrum

An interesting portrait of William Harvey is being etched by M Walther for Messrs Colnaghi & Co, of Pall Mall East The original belongs to the Royal College of Physicians G O M

ASSOCIATION ITEMS

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo, on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By Laws*, Article 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology—Dr J T Whittaker, Cincinnati, Ohio, *Chair-*

man, Dr B L Coleman, Lexington, Ky , *Secretary*

Obstetrics and Diseases of Women and Children —Dr S C Gordon, Portland, Me , *Chairman*, Dr J F Y Paine, Galveston, Texas, *Secretary*

Surgery and Anatomy —Dr Nicholas Senn, Milwaukee, Wis , *Chairman*, Dr H H Mudd, St Louis, Mo , *Secretary*

State Medicine —Dr John H Rauch, Springfield, Ill , *Chairman*, Dr F E Daniel, Austin, Texas, *Secretary*

Ophthalmology, Otology, Laryngology —Dr Eugene Smith, Detroit, Mich , *Chairman*, Dr J F Fulton, St Paul, Minn , *Secretary*

Diseases of Children —Dr W D Haggard, Nashville, Tenn , *Chairman*, Dr W B Lawrence, Batesville, Ark , *Secretary*

Oral and Dental Surgery —Dr John S Marshall, Chicago, Ill , *Chairman*, Dr A E Baldwin, Chicago, Ill , *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich —Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence

Wm B Atkinson, M D ,
Permanent Secretary
1400 Pine St , S W cor Broad, Philadelphia

MISCELLANEOUS.

The Yellow Fever Commission —The unfriendly attitude of a contemporary towards the proposed "Yellow Fever Commission" has called out an able letter from Dr Irving A Watson, of New Hampshire, to Louisiana's distinguished sanitarian, Dr Joseph Holt The following extracts are taken from his letter, which is published in the *Sanitary News*, of March 6

"It was to be expected that hostile influences would spring up where the personal interests of a few were jeopardized, and from some who place selfish motives above moral principles, jealousies before humanitarian philanthropy, and to whom revenge is sweeter than the disenthrallment of their own communities from the terrible slaughter of a relentless and uncompromising pestilence It would not have caused surprise to have found some crabbed medical journal in a state of chronic hostility to advancement in science, opposing the measure, because of its inherent inability to do otherwise, but, for a so called reputable publication, like the New Orleans *Medical and Surgical Journal*, to lead the attack in what appears to be an unchivalric and unprofessional manner, a journal having its own sanctum, as well as the sacred homes of its corps of editors, unfortified against the menacing disaster—disparaging an attempt to battle the hitherto unconquered enemy, is an incongruity of action which, to professional men living beyond the borders of yellow fever invasion, can be looked upon only as being prompted by motives which are not apparent to the public Its tender regard for the $30,000 of the funds of the United States as against the happiness, comfort and lives of the people of a vast area of this republic is too unreasonable even to credit, and must be received as a flimsy screen to conceal the animus of its opposition The assertion that the investigations of Freire and Carmona are without scientific value seems to my mind little less than a distortion of facts, and unwarranted without further investigation Freire's investigations, as recorded in his voluminous illustrated report to the Brazilian government, show an amount of scientific work that places him among the first biologists of the day, and, if his conclusions are correct, as there now appears to be no reason to doubt, crowns him as the greatest living benefactor of the human race The statistical record of his vaccinations just published (1886), together with the deaths from yellow fever in Rio de Janeiro from January to August last, presents an array of facts that cannot be controverted by any method of argument

"For a publication, whatever its name or kind, pretending to wear the dress of mediocrity even, to attempt to defeat the investigations by the general government into the means and methods of saving life and of maintaining unbroken, so long as natural law has ordained, the unit of our country's strength and prosperity—the family circle—is unless some superior plan is offered with an assurance of its adoption and execution, lamentable beyond expression when viewed from the standpoint of human love or moral duty We, at the North, with our homes safe from this one monster of death, with a patriotic regard for the welfare of every community in this great sisterhood of States, and with hearts tender to the wails of distress which we have too often heard from the sorrowing homes of the sunny South, that have been stricken with this terrible disease, join with you, your associates, and the American Public Health Association, in urging the passage of the bill now before Congress This measure is supported upon the broad principle of humanity and loyalty to public interests, by men in old New England, but to see opposition to it springing up from men living in a district that has more than once been decimated by the frightful pestilence, is an anomaly which we must believe incompatible with common sense"

Astley Cooper Prize —It is announced that the next triennial prize of £300, under the will of the late Sir Astley P Cooper, Bart , will be awarded, early in 1889, to the author of the best essay or treatise on "The Origin, Anatomy, Results, and Treatment of Tubercular Diseases of Bones and Joints" The essays shall contain original experiments and observations which shall not have been previously published, and that each essay shall (as far as the subject shall admit of) be illustrated by preparations and drawings, which shall be added to the Museum of Guy's Hospital, and shall, together with the work itself, become henceforth the property of that institution This prize is open for competition to the whole world, though the essay may not be the joint production of two or more authors Essays, either written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1889, addressed to the physicians and surgeons of Guy's Hospital Each essay or treatise must be distinguished by a motto, and accompanied by a sealed envelope containing the name and address of the writer None of the envelopes will be opened except that which accompanies the successful treatise The successful essays or treatises, with the illustrative preparations or drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents A printed form, giving particulars regarding the conditions to be complied with, may be had on application to the Dean, Guy's Hospital, Southwark, S E

THE DAKOTA MEDICAL BRIEF, is the title of another new journal, the first number to appear on the 1st of April next, at Mitchell, Dakota It is to be published monthly, and edited by F Andros, A M , M D , and H S Sevey, M D

DR LOUIS BALCH, of Albany, has been appointed Secretary of the New York State Board of Health

---

THE CAUSE OF IT —An English contemporary says, in advocating the muzzling of dogs as a preventive of hydrophobia "A muzzle at any rate, cannot be more uncomfortable than high heeled boots, tight stays, or chimney-pot hats " If dogs in London are afflicted with these things there is no great wonder that they go mad

---

PURCHASED AMERICAN DEGREES IN GERMANY — It is said that proceedings are soon to be instituted in Germany against persons styling themselves "Doctor" on the strength of diplomas purchased from America *in absentiâ* There are said to be 3400 of these "doctors" in Berlin alone, either of medicine, philosophy, or law

---

THE ILLINOIS STATE BOARD OF HEALTH has just issued a revised "Register of Physicians and Midwifes in Illinois," and recently its seventh Annual Report, for the year 1884 The report on medical education show an increasing uniformity in the methods and practices of medical colleges

---

A READY MEANS OF PRESERVING THE FLUIDITY OF BLOOD —A student in Professor Stricker's laboratory, Herr Ernest Freund, has, it seems, suggested a most simple and convenient method of preserving blood in the fluid state His plan consists in coating the interior of a glass vessel with pure oil Into this receptacle blood freshly drawn is poured, and a layer of oil is then run over the surface exposed to the air In this way we are assured, fresh blood may be kept from coagulating for days if necessary It is difficult to see how so simple an experiment, if once satisfactorily demonstrated, should afterwards be discredited by repetition We may therefore hope that this apparently trivial application of a physical law will be a real gain to practice as well as research In particular it should obviously facilitate the operation of transfusion, though it will not entirely replace that still more ready means of treatment, salt solution. It need hardly be said that this mode of preventing coagulation is new rather in its easy and general application than as illustrating a principle for the first time discovered Professor Ludwig made use of the same idea in estimating the velocity of the blood-current —*The Lancet*, Feb 20, 1886

THE MASTER PLUMBERS OF BALTIMORE have prepared a bill designed to prevent incompetent persons from carrying on the plumbing business in Maryland. It provides that the Governor shall appoint biennially five persons, to constitute the "State Board of Commissioners of Practical Plumbing," three of whom are to be skilled plumbers from Baltimore, one the Commissioner of Health of Baltimore, and the fifth to be a member of the State Board of Health

---

OHIO SANITARY ASSOCIATION —At the recent meeting of this active Association, held in Columbus, the following were elected officers for the ensuing year President, Dr S H Herrick, of Cleveland, Vice Presidents, Prof E T Nelson, Ph D , of Delaware, W H Phillips, M D , of Kenton, C P Landon, M D ,, of Westerville, Secretary, R Harvey Reed, M D of Mansfield, Treasurer, Prof John Simpson, Ph D , of Mansfield

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM FEBRUARY , 1886 TO MARCH 6 1886

Major J W Williams, Surgeon, ordered for duty as post surgeon, Vancouver Barracks, Washington Ter

Capt C E Munn, Asst Surgeon, ordered for duty as post surgeon, Ft Cœur d'Alene, I T

Capt M W Wood, Asst Surgeon, ordered for duty as post surgeon, Ft Walla Walla, Washington Ter (S O [illegible], Dept Col , Feb 20, 1886)

Major Wm S Tremaine, Surgeon, leave of absence extended six months, on surgeon's certificate of disability (S O [illegible], A G O , March 2, 1886)

Major Henry McElderry, Surgeon U S Army, leave of absence extended one month (S O 49, A G O March 1, 1886.)

Capt Wm G Spencer, Asst Surgeon, ordered for duty at Ft. Yates, D T (S O 17 Dept Dak , Feb 23, 1886.)

To be Asst Surgeons with the rank of captain, after five years' service, in accordance with the act of June 23, 1884

Asst Surgeon Wm H Arthur, Feb 18, 1886

Asst Surgeon Geo E Bushnell, Feb 18, 1886

Asst Surgeon Henry P Birmingham, Feb 18, 1886

Asst Surgeon Marlborough C Wyeth, Feb 18, 1886 (Circular A G O , March 1, 1886)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, MARCH 20, 1886 No 12

ORIGINAL ARTICLES

TUBERCULOSIS PULMONUM, ACUTE AND CHRONIC —ITS NATURE AND TREATMENT

BY A S v MANSFELDE, M D,
OF ASHLAND NEB
PERMANENT SECRETARY, NEBRASKA STATE MEDICAL SOCIETY PRESIDENT OF THE RAILROAD SURGEONS' SOCIETY OF NEBRASKA ETC

I *The name* This was chosen because the word phthisis, hitherto used for chronic tuberculosis, in the mind of the clinician, comprises conditions with which our present inquiry has no part, and again, the word tuberculosis, as used by pathologists, does not fully cover the disease processes of which we shall speak Phthisis of the clinician may include all the destructive processes taking place in the lung, and except post mortem examination clear up the error, many diseases, such as multiple embolism of whatever nature, followed by necrosis of smaller or larger areas of lung tissue, some of them, by their extent, deserving the name of gangrene, are classed with phthisis

The pathologist, on the contrary, is inclined to exclude all processes from the clinical history of tuberculosis which are not accompanied by tubercles, be they gray or yellow, situated *in* the tissue or in the bronchial termini, though of late some have included all caseous deposits in the list of tuberculous conditions That both parties are incorrect in their exclusions and admissions will be a part of my work to prove in this paper For the purposes of this paper the term *tuberculosis* is meant to cover the manifold changes, acute and chronic, occurring in the body, in the presence or by the aid of a microscopic parasite, the *bacillus Kochii vel b tuberculosis* It is also claimed that a peculiar conformity of the lymphatics facilitates the occurrence of tuberculosis, that the seed, the bacillus, requires a porous soil for its entrance into the economy, that it must remain undisturbed during its germination, that it must find in the soil a proper and sufficient amount of food for its growth and propagation, that the disease is always caused by infection, that it is never inherited, and finally, that it is often curable It would be inexcusable repetition to give a history of the diseases and conditions which, from the time of Hippocrates, have been regarded as necessary factors of tuberculosis, suffice it to say that, however contradictory observations and deductions have been, all of them were aimed at the solution of this mightiest of medical problems, the stamping out of this terror of human kind—tuberculosis To facilitate comprehension, a description of the parts involved in the disease seems unavoidable The forty two ounces of lung tissue are composed of bronchial tubes ramifying in a dichotomous manner in every direction, until their terminal branches, the bronchioles, have diminished to a diameter of from 0 3 to 0 2 mm These tubes, from their origin, the trachea, to the lobulettes, or respiratory cavities, are composed of four layers, the external fibrous, a muscular, an internal fibrous, and a mucous membrane, with its ciliated cylinder epithelium Accompanying these tubes we have the pulmonary arteries, the bronchial arteries, pulmonary veins, bronchial veins, nerves and lymphatics, all surrounded by the *adventitia*, which consists of loosely interwoven connective tissue, traversed everywhere by large lymphatics, which have from their situation received the name of perivascular lymphatics and peribronchial lymphatics, respectively The bronchi are kept, for the greater part of their course, pervious by cartilaginous plates, which are contained in the external fibrous layer, here clusters of fat cells and mucous glands also abound The latter terminate by a straight duct, with trumpet shaped mouth upon the free surface Approaching the respiratory cavities the glands and cartilages disappear entirely, and the external fibrous layer in which they are imbedded, though constituting one half of the calibre of the larger tubes, diminishes to the size of a delicate membrane Upon this the muscular coat, consisting of delicate bands of smooth muscle cells, is placed, and upon that the internal fibrous layer, particularly noted for its elastic bands and fibres, which continue into the parenchyma of the lung The parenchyma proper consists of delicate connective tissue sheaths, which constitute the framework of the respiratory cavities, of connective tissue rich in elastic fibres, which tissue forms the septa of the contiguous alveoli, as well as the boundary tissue between systems of alveoli, called lobulettes, and their multiples, lobules

Between the septa and in the connective basis substance, close to the respiratory cavities, bloodvessels and capillaries, lymphatics and lymph spaces abound The alveoli or air vesicles are small shallow cavities, lined by a stunted epithelium of the cylindrical variety, assuming the type of the pavement epithelium, barely recognizable in the adult, yet easily observable in the new-born child The hyaline membrane composing these cavities carries upon its con-published, and that each essay shall (as far as the subject shall admit of) be illustrated by preparations and drawings, which shall be added to the Museum of Guy's Hospital, and shall, together with the work itself, become henceforth the property of that institution This prize is open for competition to the whole world, though the essay may not be the joint production of two or more authors Essays, either written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1889, addressed to the physicians and surgeons of Guy's Hospital Each essay or treatise must be distinguished by a motto, and accompanied by a sealed envelope containing the name and address of the writer None of the envelopes will be opened except that which accompanies the successful treatise The successful essays or treatises, with the illustrative preparations or drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents A printed form, giving particulars regarding the conditions to be complied with, may be had on application to the Dean, Guy's Hospital, Southwark, S E

The Dakota Medical Brief, is the title of another new journal, the first number to appear on the 1st of April next, at Mitchell, Dakota It is to be published monthly, and edited by F Andros, A M , M D , and H S Sevey, M D

Dr Louis Balch, of Albany, has been appointed Secretary of the New York State Board of Health

---

The Cause of it —An English contemporary says, in advocating the muzzling of dogs as a preventive of hydrophobia "A muzzle at any rate, cannot be more uncomfortable than high heeled boots, tight stays, or chimney-pot hats" If dogs in London are afflicted with these things there is no great wonder that they go mad

---

Purchased American Degrees in Germany — It is said that proceedings are soon to be instituted in Germany against persons styling themselves "Doctor" on the strength of diplomas purchased from America *in absentiâ* There are said to be 3400 of these "doctors" in Berlin alone, either of medicine, philosophy, or law

---

The Illinois State Board of Health has just issued a revised "Register of Physicians and Midwifes in Illinois," and recently its seventh Annual Report, for the year 1884 The report on medical education show an increasing uniformity in the methods and practices of medical colleges

---

A Ready Means of Preserving the Fluidity of Blood —A student in Professor Stricker's laboratory, Herr Ernest Freund, has, it seems, suggested a most simple and convenient method of preserving blood in the fluid state His plan consists in coating the interior of a glass vessel with pure oil Into this receptacle blood freshly drawn is poured, and a layer of oil is then run over the surface exposed to the air In this way, we are assured, fresh blood may be keyt from coagulating for days if necessary It is difficult to see how so simple an experiment, if once satisfactorily demonstrated, should afterwards be discredited by repetition We may therefore hope that this apparently trivial application of a physical law will be a real gain to practice as well as research In particular it should obviously facilitate the operation of transfusion, though it will not entirely replace that still more ready means of treatment, salt solution It need hardly be said that this mode of preventing coagulation is new rather in its easy and general application than as illustrating a principle for the first time discovered Professor Ludwig made use of the same idea in estimating the velocity of the blood-current —*The Lancet*, Feb 20, 1886

The Master Plumbers of Baltimore have prepared a bill designed to prevent incompetent persons from carrying on the plumbing business in Maryland It provides that the Governor shall appoint biennialy five persons, to constitute the "State Board of Commissioners of Practical Plumbing," three of whom are to be skilled plumbers from Baltimore, one the Commissioner of Health of Baltimore, and the fifth to be a member of the State Board of Health

---

Ohio Sanitary Association —At the recent meeting of this active Association, held in Columbus, the following were elected officers for the ensuing year President, Dr S H Herrick, of Cleveland, Vice-Presidents, Prof E T Nelson, Ph D , of Delaware, W H Phillips, M D , of Kenton, C P Landon, M D ,, of Westerville, Secretary, R Harvey Reed, M D , of Mansfield, Treasurer, Prof John Simpson, Ph D , of Mansfield

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM FEBRUARY 27, 1886, TO MARCH 6 1886

Major J W Williams, Surgeon, ordered for duty as post surgeon, Vancouver Barracks, Washington Ter

Capt C E Munn, Asst Surgeon, ordered for duty as post surgeon, Ft Cœur d'Alene, I T

Capt M W Wood, Asst Surgeon, ordered for duty as post surgeon, Ft Walla Walla, Washington Ter (S O 31, Dept Col , Feb 20, 1886)

Major Wm S Tremaine, Surgeon, leave of absence extended six months, on surgeon's certificate of disability (S O 50, A G O , March 2, 1886)

Major Henry McElderry, Surgeon U S Army, leave of absence extended one month (S O 49, A G O March 1, 1886)

Capt Wm G Spencer, Asst Surgeon, ordered for duty at Ft Yates, D T (S O 17 Dept Dak , Feb 23, 1886)

To be Asst Surgeons with the rank of captain, after five years' service, in accordance with the act of June 23, 1884

Asst Surgeon Wm H Arthur, Feb 18, 1886

Asst Surgeon Geo E Bushnell, Feb 18, 1886

Asst Surgeon Henry P Birmingham, Feb 18, 1886

Asst Surgeon Marlborough C Wyeth, Feb 18, 1886 (Circular A G O , March 1, 1886)

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI | CHICAGO, MARCH 20, 1886 | No 12

ORIGINAL ARTICLES

TUBERCULOSIS PULMONUM, ACUTE AND CHRONIC —ITS NATURE AND TREATMENT

BY A S v MANSFELDE, M D,
OF ASHLAND NEB
PERMANENT SECRETARY, NEBRASKA STATE MEDICAL SOCIETY PRESIDENT OF THE RAILROAD SURGEONS SOCIETY OF NEBRASKA ETC

I *The name* This was chosen because the word phthisis, hitherto used for chronic tuberculosis, in the mind of the clinician, comprises conditions with which our present inquiry has no part, and again, the word tuberculosis, as used by pathologists, does not fully cover the disease processes of which we shall speak Phthisis of the clinician may include all the destructive processes taking place in the lung, and except post-mortem examination clear up the error, many diseases, such as multiple embolism of whatever nature, followed by necrosis of smaller or larger areas of lung tissue, some of them, by their extent, deserving the name of gangrene, are classed with phthisis

The pathologist, on the contrary, is inclined to exclude all processes from the clinical history of tuberculosis which are not accompanied by tubercles, be they gray or yellow, situated *in* the tissue or in the bronchial termini, though of late some have included all caseous deposits in the list of tuberculous conditions That both parties are incorrect in their exclusions and admissions will be a part of my work to prove in this paper For the purposes of this paper the term *tuberculosis* is meant to cover the manifold changes, acute and chronic, occurring in the body, in the presence or by the aid of a microscopic parasite, the *bacillus Kochii vel b tuberculosis* It is also claimed that a peculiar conformity of the lymphatics facilitates the occurrence of tuberculosis, that the seed, the bacillus, requires a porous soil for its entrance into the economy, that it must remain undisturbed during its germination, that it must find in the soil a proper and sufficient amount of food for its growth and propagation, that the disease is always caused by infection, that it is never inherited, and finally, that it is often curable It would be inexcusable repetition to give a history of the diseases and conditions which, from the time of Hippocrates, have been regarded as necessary factors of tuberculosis, suffice it to say that, however contradictory observations and deductions have been, all of them were aimed at the solution of this mightiest of medical problems, the stamping out of this terror of human kind—tuberculosis To facilitate comprehension, a description of the parts involved in the disease seems unavoidable The forty two ounces of lung tissue are composed of bronchial tubes ramifying in a dichotomous manner in every direction, until their terminal branches, the bronchioles, have diminished to a diameter of from 0 3 to 0 2 mm These tubes, from their origin, the trachea, to the lobulettes, or respiratory cavities, are composed of four layers, the external fibrous, a muscular, an internal fibrous, and a mucous membrane, with its ciliated cylinder epithelium Accompanying these tubes we have the pulmonary arteries, the bronchial arteries, pulmonary veins, bronchial veins, nerves and lymphatics, all surrounded by the *adventitia*, which consists of loosely interwoven connective tissue, traversed everywhere by large lymphatics, which have from their situation received the name of perivascular lymphatics and peribronchial lymphatics, respectively The bronchi are kept, for the greater part of their course, pervious by cartilaginous plates, which are contained in the external fibrous layer, here clusters of fat cells and mucous glands also abound The latter terminate by a straight duct, with trumpet shaped mouth upon the free surface Approaching the respiratory cavities the glands and cartilages disappear entirely, and the external fibrous layer in which they are imbedded, though constituting one half of the calibre of the larger tubes, diminishes to the size of a delicate membrane Upon this the muscular coat, consisting of delicate bands of smooth muscle cells, is placed, and upon that the internal fibrous layer, particularly noted for its elastic bands and fibres, which continue into the parenchyma of the lung The parenchyma proper consists of delicate connective tissue sheaths, which constitute the framework of the respiratory cavities, of connective tissue rich in elastic fibres, which tissue forms the septa of the contiguous alveoli, as well as the boundary tissue between systems of alveoli, called lobulettes, and their multiples, lobules

Between the septa and in the connective basis substance, close to the respiratory cavities, bloodvessels and capillaries, lymphatics and lymph spaces abound The alveoli or air vesicles are small shallow cavities, lined by a stunted epithelium of the cylindrical variety, assuming the type of the pavement epithelium, barely recognizable in the adult, yet easily observable in the new born child The hyaline membrane composing these cavities carries upon its convex surface the tortuous capillaries which intertwine in the septa of contiguous alveoli, and so closely do these minute blood-vessels embrace the alveoli, that their delicate arms sink by more than half into the cavity of the air vesicle. A number of alveoli grouped together form an infundibulum, several infundibula terminate in one common passage—still composed of air vesicles—the alveolar passage, three or four of which form a lobulette, or acinus of the lung, ten or fifteen of these comprise a lobule, and these again join to form the three lobes of the right, and two lobes of the left lung. The lymphatics, as everywhere in the body, so also in the lung, take their origin from surfaces covered by epithelium and endothelium in the following manner. As is known, both the epi and endothelial cells covering surfaces are not contiguous, but are separated by what is called cement substance, and this substance does not adhere intimately to the apposite cells, but sufficient space remains for the transmission of fine particles, of solid substances even, such as sulphindigate of soda, as has been so beautifully demonstrated as occurring in the kidney, *i. e.*, from the capillaries surrounding the uriniferous tubules to the lumen of the latter (Heidenhain demonstrating the excretion of solid substances by these channels).

It is very probable that this cell cement forms part of the bodies of connective tissue corpuscles, for it is in proximity to these elements of the fibrous connective tissue and their derivatives, the fibres, or bundles of fibres, that we find the first traces of lymphatics; these are lymph spaces, minute irregular channels, lined with the same delicate endothelial plates which we are accustomed to find in blood and lymph capillaries, and they, the lymph-spaces, occupy the intermediate ground between these two systems of vessels, the blood capillaries leading to them and the lymph capillaries from them. Now, when we remember that the alveoli or air vesicles have a diameter of 0·1 to 0·4 mm., and that the capillaries nearest them have a diameter of 0·0045 to 0·0113 mm., and presumably nearer the smaller limit, as the capillaries of the lung belong to the narrowest in the body, we will realize the smallness of the lymph spaces, which do not admit blood corpuscles under ordinary circumstances. The dimensions of these lymph spaces would be inconceivable were it not for the aid which the microscope vouchsafes, and yet it is here, and only here, where the battle for life and supremacy between the elements of the body on the one hand, and the bacilli upon the other, takes place.

The bacillus tuberculosis vel Kochii.—At the meeting of the Berlin Physiological Society on March 24, 1882, Dr. Robert Koch announced that he had found by a process of double staining (with methyl blue and vesuvin), a bacillus of the length of one third the diameter of a blood corpuscle (0·0026 mm.), with a breadth of one-sixth to one fifth of its own length (0·0004 to 0·0005 mm.). That this bacillus occurred in fresh tubercles and more sparingly in older ones, that he had cultivated them upon solid media (Nahrboden), composed of coagulated blood serum, that they grew very slowly, needing about two to four weeks for their life-cycle, and that they required a temperature between 86° and 105° Fahrenheit for their development, that he had grown several generations of these bacilli, and that members of each generation, introduced into the bodies of other animals, had given rise to tuberculosis, that, therefore, *this bacillus is the infective agent by which, or in the presence of which tuberculosis develops* (and not simply *tubercles*, as many writers seem to think, for tuberculosis is a pathological entity, tubercles simply an anatomical one.—The author). Now, it is universally admitted that these bacilli are omnipresent in restricted localities, such as certain hospitals, less so in tenement houses, cities, country towns, the country, and places which are uninhabited. This being so, why is it that attendants of such hospitals, physician and nurses, are no more likely to take the disease than the rest of the community? and why are these only liable to the extent of fifteen out of every hundred? The smallness of the bacilli and their omnipresence are certainly no barrier to their choice of habitat. The reason, then, why general infection does not occur, must not be sought for in the peculiarities of the bacilli, but in differences existing between the members of the human family. This brings us to the consideration of

The peculiar conformity of the lymphatics by which the occurrence of tuberculosis is facilitated.—In regard to this subject we may be permitted to quote Dr. H. F. Formad, of Philadelphia, whose paper read before the Philadelphia County Medical Society on October 18, 1882, deserves not to be buried in oblivion, which it stands in danger of, partly in consequence of deductions fully unwarranted as time has demonstrated, and partly because of the adverse criticism of Koch, whose authority was, and is even now, so great in investigations concerning bacteriology, that his *pro* or *con* decides the fate of offspring in this branch of medical science.

Formad says: "*The predisposition to tuberculosis in some men and animals, the so called scrofulous habit, lies in the anatomy of the connective tissue of the individual, the peculiarity being a narrowness of the lymph spaces and their partial obliteration by cellular elements.* The idea of working up the anatomy of scrofulous persons was suggested to me some years ago by the lectures of Prof. James Tyson. Dr. Tyson, in his lectures, as well as Virchow, lays great stress upon the predisposition to tuberculosis, and designates it as a peculiarity of scrofulous persons, that inflammatory processes in such persons terminate ultimately in the formation of cheesy matter at the seat of injury. The general impression among pathologists and clinicians is that the lymphatic apparatus is in some way at fault in these persons, although there are no direct anatomical observations on this point on record. I thought that the minute anatomy of the tissues of such persons should be investigated, and at once began to collect the necessary material.

I have here two specimens under the microscope to which I invite your particular attention, as they illustrate the histological difference referred to between the normal tissue of the rabbit and that of the cat. The animals, which are representatives of the scrofulous and non-scrofulous species, were of equal age, both healthy, killed in a similar manner, and the sections, which were taken from precisely corresponding parts, are equally treated and mounted I selected in this case the corresponding parts of the nose of the two animals It makes, however, no difference what part of the body is taken, as long as it shows some connective tissue The relative difference to be spoken of is equally striking everywhere in the two animals in corresponding parts of the body At the first glance it is seen in the specimen from the rabbit that there are a great many more cells in the microscopic field than in the corresponding field in the specimen from the cat Again, that the cells which are located in both cases between the interstices of the connective tissue are predominantly round and crowded in the rabbit, with only a few spindle shaped and stellate cells, while in the cat the cells are mainly of the latter two varieties, scattered and few in number In other respects the connective tissue proper appears similar in both cases The difference seen in the tissue of the rabbit and the cat exactly corresponds to a similar difference between the scrofulous human being on the one hand, and a normal individual on the other Repeated microscopic examination of well-selected cases has shown this Comparing a large number of sections taken from corresponding parts of the bodies of rabbit and cat, it is also distinctly seen that the lymph spaces are, on the average, decidedly narrower and fewer in the rabbit than in the cat The perivascular spaces are, however, equally free and similar in both

"The filling of the lymph spaces with desquamated and germinating endothelial cells, or with wandering—in white blood corpuscles, is a well known fact in the pathological histology of tuberculosis, but it does not seem to be known that this is a normal condition in the rabbit and guinea pig, and in scrofulous persons long before tubercular disease ensues

"The results of the observations above briefly narrated suggest the establishment of an anatomical criterion for the predisposition to phthisis Animals with this predisposition, viz the described anatomical anomaly constitute a well defined species, that of scrofulous animals The same anatomical anomaly is seen in men, and hence, I think, we are justified in classing all the scrofulous human beings as a pathological species of mankind The scrofulous condition being an anatomical anomaly, is thus not necessarily a pathological condition, and is by no means a disease in itself It has a perfect analogue in the domestic rabbit and the guinea pig The offspring of these scrofulous animals have the anatomical peculiarity of the connective tissue of their parents, they inherit it, and so do the offspring of scrofulous human beings"

It must not be forgotten that this condition, called scrofulous by Formad, can be induced in animals and men who hitherto have not possessed it, and that those who have *acquired* it may transmit it to their progeny It is certainly a clinical fact, that many people who are scrofulous—that is, have this narrowing of the lymphatics and accumulation of cells in them, never die of tuberculosis And again, that persons do die of this disease, who did not manifest prior to its establishment any of the criteria of scrofulosis Another factor, therefore, for the establishment of tuberculosis must necessarily be added, and this consists *in the porosity of the soil for the implantation of the seed, the bacillus*

Not all localities are equally accessible to the bacillus Observation shows that stratified pavement epithelium forms the most thorough protection to the underlying structures A recent author goes so far as to claim that gonorrhœa in the female seldom, if ever, proceeds from the vagina, but having been established upon the cervical membrane (cylinder epithelium) spreads thence to the adjoining parts, which may readily yield to medication, the disease, the gonococci, however, may still remain in the starting point, the uterine cervix, as a nidus not only for infection of parts more interiorly situated, but also for the urethral mucous membrane of the male, thus furnishing an explanation for the causation of gonorrhœa by females apparently well And just so the stratified epithelium of the mouth protects this from syphilitic, diphtheritic and tuberculous infection with far greater certainty, than the stratified columnar epithelium of the parts beyond Less resistance, of course, is offered by simple layers of epithelium of which the cylindrical variety is the least resistant We do not speak of traumatic lesions now, they may one and all of them be included in the category of accidental inoculations, productive, invariably so, of a primary tubercle formation and consequent general miliary tuberculosis, or of the latter at once, which difference is explained by the amount of material (baccilli and their spores) which has found its way into the circulation Of these things hereafter What concerns us now is the cultivation of the soil, i e the lungs, for the reception of the seed, and no conditions are better husbandmen than measles and pertussis, and their concomitant bronchitis And none exemplify our meaning better For in measles we meet with a form of bronchitis, which seems to affect the uppermost layers, the epithelia of the mucous membrane particularly So much so that smaller or larger patches of the epithelia die and leave raw surfaces exposed, open for the reception of almost anything—the bacilli of tuberculosis among others And indeed tuberculous ulceration of the larger bronchi would be far more frequent, were it not for a provision hitherto entirely overlooked—the protection offered by the elastic fibres of the internal fibrous layer, and *particularly by the circular muscle-layer, which may be crowded to death by tubercular growths, but never acts as their submissive host*

In pertussis we seldom miss the bronchitis, and as in measles so in this disease, the lymphatics and mucous and bronchial glands are drawn into sympathy, even to the extent of softening of the latter To this is added the spasm of the glottis which is overcome by the explosive cough, but seldom without injury to the mucous membrane of the bronchi, so that hæmorrhages, larger or smaller, from it, are of frequent occurrence Another factor established by the spasmodic cough is the squeezing of the fluid portion from the contents of the alveoli, leaving the dry debris behind, which simulate in their appearance the caseous matter of so called catarrhal pneumonia And acting as foreign substances upon the walls of the alveoli cause a proliferation and death of the alveolar epithelium, and thereby present a new surface, a porous soil, to the seed of tuberculosis This same result is reached in another way by capillary bronchitis, in which the inflammatory process of the smaller bronchi extends to the alveoli, giving rise to a deposit into them, which is composed of the usual inflammatory exudate and the multiplied epithelia and their debris, now called catarrhal pneumonia, a name not at all appropriate, and one which should be replaced by that of alveolar-bronchitis, for that is what its anatomical features proclaim it to be

Thusly another and very important requisite for the development of tuberculosis is furnished, namely *The undisturbed possession of the proper soil, for the the germination of the seed of the disease* For the spores of tubercles, like other seeds, in order to develop, must be bedded in or on the soil before they can grow and propagate Indeed, in the case of the tubercle bacilli it is absolutely necessary, as they have but one method of spreading, that of infiltration of the surrounding tissue Now no part of the body offers a better and more quiet retreat for these purposes, than the alveoli, withdrawn as they are from the performance of the respiratory function And it is just here that the importance of Dr Formad's investigations appears The contracted lymphatic spaces, already crowded with cellular bodies offer, or rather cannot offer any assistance to remove the material accumulating in the alveoli Nor can they permit the entrance into them, or the passage through them of matters accidently introduced into the burdened alveoli (For it is not an absurd supposition, by any means, to maintain the passage of bacillary spores, and bacilli even, through the lymphatics into the blood stream and thence by way of the kidneys out of the body) The lymph spaces, modified as they are in the scrofulous, do double duty, they assist in the retention of the product of the preceding alveolar bronchitis (alveolitis), and stand guard against intrusions upon the travail of the seed of tuberculosis That these things are absolutely necessary, is shown by a recent and very ingenious experiment by Prof Ribbert, of Bonn He quotes the observation of Lichtheim that a difference in the localization of ' mucor" and "aspergillus" exists That the latter by preference develops in the muscle tissue, whilst of the former only once a small focus was found by him in the diaphragm Prof Ribbert, knowing that the spores of mucor are very much smaller than those of aspergillus, subjected the spores of the former, with suitable precautions, to a process of hatching, by which they carried on outside of the body a part of their developmental phase In the course of twenty-four to thirty hours the microscope could detect a number of swollen and already germinating spores Such a preparation injected into the body would be followed by a great many foci of growing mucor in the muscles of the body The germs had become larger, and this was sufficient to retain them in the tissue through which they would have otherwise passed

Wesener finds that entirely different effects result when tuberculous sputa are injected into the intestines directly, or into the stomach by way of the stomach tube The latter process would be followed by varying results, and when tuberculosis did occur, it was found almost invariably in the mesenteric glands (rabbits) The injection into a loup of the small intestines, to the contrary, was followed by tuberculous ulceration of the intestinal wall itself Wesener thinks that by stomach ingestion, the bacilli are destroyed and the spores only find their way into the intestines, and are not lodged until they reach the mesenteric glands, where they develop, but when the sputa are injected into the intestines directly, the bacilli at once commence their deleterious work upon their walls

The frequent occurrence of the latter form of tuberculosis in patients sick with the same disease of the lung, may then be explained by the quantity of sputa ingested, by the weakened stomach digestion often noticed in such cases, the possibility of an advanced development of the spores, which find their way into the intestines, the anatomical changes described by Formad, and finally by traumatic lesions in the intestinal mucous membrane, caused by the cough, and other influences, not to speak of the loss of resistance of the tissues, presently to be mentioned All these things being granted, another factor for the lodgment of spores and bacilli of no small importance must be considered *The carriers of the poison*

For a full comprehension of this point we may be permitted to again refer to Prof Ribbert's paper, above alluded to Injections into the vein of the ear of a pure culture of staphylococcus aureus would be followed occasionally by very small foci of this bacterium in the heart muscle Prof Ribbert varied the experiment by scraping some of the potato upon the surface of which the staphylococcus had grown, and formed an emulsion of the two, which he then injected into the vein of the ear, the result was a multiple embolism caused by the potato, in the substance of the heart, and a growth of fair dimensions of the staphylococcus The particles of potato furnished a stopping place for the bacterium, and its subsequent development Thusly our position, that the bacillus of tuberculosis must have a resting place, is corroborated by the experiments of other observers for bacteria of an entirely different character, and we repeat, that no place seems more propitious than the alveolus, withdrawn from the functioning part of the lung, provided however, that it furnishes *the food necessary for the development and propagation of the bacillus* And this food is supplied in the following manner In the first place it cannot be doubted, that the material contained in the alveoli, composed of the factors of the blood, and the epithelial cells of the alveoli furnishes a nutritive medium of superior quality the efficacy of which is enhanced by the proper temperature, and this very food prior to its exhaustion by the bacilli, has opened the way to further supplies by its influence upon the adjacent tissue, pressure has brought the resistance of this down to a minimal, to be readily overbalanced by the advancing hordes of the enemy, it falls a ready prey to the bacilli, multiplied and fattened upon the contents of the alveoli

But the pressure of the deposit in the alveoli is not the only cause of the lessened energy of the surrounding tissue elements Here again the conditions described by Formad will spring into view It needs scarcely a mention to him who knows, that the facility with which interchange of material in the tissues takes place, governs materially the vitality of such tissues No one can fail to see the crowded and narrow lymph spaces, without observing at the same time the stunted blood capillaries, even the surface of such tissue shows the starved condition of it, by its paleness and flabbiness The very treatment of such parts by the physician and the surgeon demonstrates the low vitality inherent in them The tuberculous membrane of the pharynx receives stimulating applications by the former, whilst the latter irritates the tuberculous joint by blister and rubefacient, fully cognizant of the fact, that *rest*, the alpha and omega of the treatment of inflammation (over nutrition) is worse than useless in these cases

In connection with this part of our subject, it would be an unpardonable oversight not to mention the part played by the cells of the body, which Metschnikoff calls phagocytes (the amœboid cells and leucocytes) upon the one hand, and the fungi upon the other "The phagocytes retaining their original character of intercellular food reception, act through it as the exterminators of the parasites, and appear therefore as representatives of the long since known healing power of nature, which was first placed by Virchow into the tissue elements" He continues to form an analogy, and with good reason, between the occurrences in the disease of the daphnia and tuberculosis, and concludes "That also in tuberculosis, against the cause of the disease, a battle of the phagocytes rages, through which the organism often for a long time resists, and in some instances conquers" Thus every phase of the history of tuberculosis puts into prominence the importance of the scrofulous condition of the tissue Yes, even the treatment of a person, sick with tuberculosis of the lung, as taught by experience, assumes the necessity of restoring the greatest vitality to the patient, attainable by him And what does this mean more than the restoration to their normal vigor of the component parts of the body

That tuberculosis may occur anywhere in the economy wherever connective tissue and lymphatics exist, goes without saying, and that the cause of the disease, the bacilli and their spores, may and do find their way into the tissues by channels at all conceivable, is a statement warranted by experience Yet this important point must not be overlooked, that tuberculosis is always a local disease, spreading by progressive invasion, and that general miliary tuberculosis is caused, with exception of its direct (artificial) introduction into the blood stream, by the discharge of the contents of localized foci, either into the thoracic duct or the blood stream This takes place by the intervention of softened glands upon the one side, which empty their contents into the thoracic duct and thence into the circulation, or by a breaking of the softened mass from the glands into the blood stream, by way of adjacent veins, the walls of which have been destroyed by the same cause C Weigert found, in thirteen out of fourteen cases of acute miliary tuberculosis, the place where the softened mass had broken into the general circulation, or into the thoracic duct

The writer has several times followed the course of local infection to the development of general tuberculosis and death The last case was particularly instructive It concerned a young man, rather intemperate, with all the evidence of a weakened vitality, with no family history of tuberculosis, who had a tooth drawn by a dentist Several days after the extraction, intense pain in the tooth cavity took place, which was eased with anodynes Several weeks later the submaxillary glands became enlarged and some eventually discharged their contents exteriorly By this time a sinus was established from the tooth cavity to the surface below the angle of the jaw I advised extirpation as the only means of hope, this was refused, and local applications ordered by consultants The final issue—miliary tuberculosis and death—and all this in less than six months Now an easy solution of this case is offered by the supposition, that the dentist's tools were infected with the tubercle poison by previous use—the writer will have to see the first dentist yet who seems to have heard anything of antiseptic surgery A drying with a towel of the instruments used, after they have been rinsed in cold water is the full extent of the precautions against infection usually taken I do not at the present writing remember of reading anywhere anything regarding the danger from dental surgery And yet it seems greater from the very proximity to the sources of infection, as well as the nearness of the submaxillary and deep lymphatic glands to the thoracic duct, and the general circulation I know that the road to general tuberculosis by way of those glands, is the nearest that can be traveled Now that attention has been drawn to this source of infection, who is it in general practice who does not remember just such cases, and shall he not join the writer in sounding the alarm?

(*To be concluded*)

ENLARGED CERVICAL GLANDS[1]

BY HERMAN F VICKERY, M D,

OF BOSTON

The object of this paper is to arrive at definite and well-grounded opinions as to the treatment of what is sometimes called "scrofulous neck" These cases present enlarged lymphatic glands in the neck, causing little inflammatory disturbance or pain, as a rule, but very chronic, and tending to break down into cheesy pus Exceptionally, complete resolution takes place, more often, fibrosis or calcification, but in the great majority of cases, sooner or later, arises an abscess which discharges through a sinus, the sinus emitting pus more or less constantly until the entire gland has been thus expelled Although there is not much suffering, yet the tediousness of these cases, which may persist for years, the unsightly appearances caused both by the glands and sinuses and by the scars they leave behind, and above all, certain dangers hereafter to be more fully discussed, render it desirable that the best possible treatment should be employed for them

---

[1] Read before the Section for Clinical Medicine Pathology and Hygiene of the Suffolk District Medical Society January 13 1886

We find the disease prone to attack children much rather than adults, although even old age is not absolutely exempt All debilitating, hereditary, or hygienic conditions predispose to it, its chief victims, therefore, are the children of the poor and ignorant, or of consumptive or syphilitic parents Overcrowding, lack of sunlight, insufficient and improper food, exposure to cold and wet, all promote its occurrence Out of 172 children who entered a workhouse in Kent, England, healthy, all but three came to have enlarged glands The exciting causes are very numerous, comprising such lesions of the mucous membranes as ozaena, stomatitis, tonsillitis, pharyngitis, laryngitis, otitis, and conjunctivitis It may follow chronic eczematous processes in the scalp or face It frequently arises after scarlet fever and measles, and may be excited by dentition or by trauma It is characteristic of this form of adenitis that, although supposed to be invariably secondary, its extent and persistence frequently far exceed those of the primary lesion It is often impossible to determine what did give rise to the glandular disorder

In early stages, the enlarged glands are freely movable upon the underlying tissues and underneath the skin They are smooth in surface, of uniform density, and more or less spherical It is seldom that a solitary gland is swollen, usually two or more are affected The affection is not essentially symmetrical, it may be bilateral After continuing a variable length of time with but little change, the gland may, as has been said, be absorbed Such a result is especially likely at puberty The rule, however, is that the tissues undergo what is called a "cheesy" degeneration This can usually be recognized during life by the nodular surface of the gland, its presenting spots of softening or fluctuation, and its adherence to the skin as well as to neighboring glands, if they also are enlarged A rare termination for this cheesy transformation is spontaneous dessication and calcification Almost always there is gradually increasing suppuration, abscess formation, and external discharge through the adherent skin About the histological changes, I wish merely to state what seems essential to forming a just view of the dangers and treatment of the disease Schuppel, of Tubingen, published in 1871 a book on "Tuberculosis of the Lymph Glands," in which he shows that a large proportion of what are called "scrofulous" glands—although not all—present the microscopic characteristics of tubercle, that is, one or more giant cells surrounded by epitheloid cells and lymph corpuscles, the whole supported by a fine recticulum Klebs produced, by the inoculation of tuberculous matter, a disease of the lymph glands exactly like scrofulous infiltration Koch reported, in 1884, that he had examined twenty one cases of tuberculous glands (meaning such glands as presented epithelioid cells grouped in foci, and accompanied by more or less numerous giant cells), and that he invariably found bacilli tuberculosis in them There were indeed, other enlarged glands, in part softened and dotted with minute abscesses, but with no epithelioid nor giant cells, in which he found no bacilli From the submaxillary gland of a scrofulous boy he obtained pure cultures of the specific tuberculous bacilli Dr Hippolyte Martin also produced a series of cases of general tuberculosis in guinea-pigs, starting from the inoculation of pus taken *post-mortem* from the "firmly encased submaxillary gland of a child who had died of measles and broncho-pneumonia, without any trace of tubercular disease, but with well marked clinical characteristics of scrofula" It may therefore be affirmed of enlarged cervical glands, such as are ordinarily called scrofulous, that certainly a large proportion of them, and probably a large majority, are really tuberculous

As already stated, the existence of scrofulous lymphatic glands usually implies that the general health has been impaired The local disturbance is seldom very annoying The condition is often discovered by accident Occasionally there is some pain and tenderness, particularly if suppuration is taking place By its mechanical pressure, a gland, or a collection of glands matted together, may give rise to compression of the carotid or jugular, the trachea or œsophagus, the recurrent laryngeal, sympathetic or vagus nerves Epistaxis is sometimes caused by them, and even fatal suffocation

It is seldom that diagnosis is difficult Acquired syphilis may cause induration of the cervical glands, but the enlargement is less, the tendency to cheesy degeneration is slight, and we should find other venereal symptoms A simple adenitis, such as might, for example, follow traumatism, is more acute It exhibits more inflammation, and either resolves or suppurates much sooner than a scrofulous gland Pseudo leukæmic glandular enlargements are more or less universal throughout the body, that is, in the axillæ and groins and at other points, they grow more rapidly, do not break down, and are accompanied by marked anæmia and debility Glanders and farcy could hardly be mistaken for mere scrofula, if the physician exercised any care whatever, and the same might be said of bronchocele Cystic and other tumors may occur in this region, but are comparatively rare, and their differential diagnosis can be learned in works on surgery

"The scrofulous patient," says Allbutt, writing on the treatment of scrofulous neck, "runs three risks in the continuance of his local malady over and above his faulty inheritance, namely first, a tedious local disease followed by a peculiarly unwelcome disfigurement, secondly, the fear of deterioration of his general health thereby, such that his best years of adolescence are spoiled and his entrance into manhood thwarted and weakened, thirdly, an inoculation of the system with elements which favor the development of more general tuberculosis"

In the early stages it is quite possible that a gland may be absorbed if the general health be built up Local applications may also promote the same result, but we shall revert to this point under treatment When once nodulation, softening and adhesions have begun, the cheesy process is under way, and it seldom ceases before the gland is totally necrosed and discharged A fibrous or calcareous transformation of the gland is, however, possible, as is also absorption even now A further and more important consideration is the effect upon the general health, if the glands are tuberculous Friedlander, in his familiar lecture on "Local Tuberculosis," states that although the process is malignant, it is not apt to become diffuse Out of 332 cases of phthisis, Philips found, *post mortem*, "scrofulous scars" in but seven Again, out of 1,078 autopsies of consumptives, less than one per cent showed evidence of cervical gland disease Says Treves, in his work on "Scrofula and its Gland Diseases " "While scrofula and phthisis are manifestations of the same morbid process, I am nevertheless convinced that phthisis is by no means common in the scrofulous, and that the bulk of such patients do not die of pulmonary consumption " And as to the danger of acute miliary tuberculosis, Treves does not think it very great, although he would not be entirely indifferent to it On the other hand, Rindfleisch believes that "tuberculosis hardly ever appears except in scrofulous persons " Lynch affirms that "The products of decay resulting from scrofulous processes may enter the circulation and directly produce the tuberculous dyscrasia " Further remarks about prognosis will be made incidentally under Treatment, which is the next and final topic

The first indication to be met is, of course, to allay all causative disorders, such as eczema, rhinitis, pharyngitis and the like The general health next demands attention In the first place it is usually depraved Secondly, if the patient be in a state which offers the bacilli tuberculosis a favorable nidus so far as the lymph glands are concerned, why may we not justly fear that predisposition to tuberculosis pulmonum also exists? Either ground is sufficient basis for vigorous tonic treatment Fresh air should be obtained for the patient, either at the seashore or in the mountains or in the country For dwellers near the coast it would seem more natural to choose the interior Sunlight, moderate exercise, simple but nutritious and abundant food, salt water baths, and such analeptics as cod liver oil, iron, arsenic or iodine, —all these should be simultaneously brought to bear upon the case

If glands are already cheesy, we may be tolerably certain that a lingering, disagreeable and disfiguring process will go on for months and perhaps years, unless the necrotic tissues are removed by operation Experience has proved only too clearly the inefficiency of external applications, while surgical removal has been found to be very satisfactory and comparatively easy For example, Billroth, Treves, Fagan, of Belfast, and Teale, of Leeds, all express themselves as pleased with the results of extirpation

About the treatment of cases still in the first stage there seems to be more room for difference of opinion Let us make sure, before we form our own, what we would like to obtain for a local result Friedlander makes the following therapeutic deductions at the end of his lecture already referred to It is desirable to remove tubercles where it can be done without danger, because (1) they are fated to destruction, and until they are removed recovery cannot be perfect; and (2) by such removal we destroy a source of at least local infection On the other hand, he proceeds to say, we should only very exceptionally undertake any serious operations which cripple or deform the patient, just on account of local tuberculosis because, (1) constitutional infection is not inevitable, and (2) spontaneous recovery is possible Schuppel quotes with warm approval the dictum of Virchow that "it is certainly justifiable to remove as early as possible such tuberculous organs as can be easily reached If operation seems impossible or undesirable, then we should at least hasten suppuration and free discharge" Treves, in discussing treatment, declares "Out of the enormous number of patients who present caseous deposits in their bodies, the percentage of those who fall victims to diffused tubercular disease is so very small that the probability of that disease may be put out of the question I think also," he continues, "that the argument advanced by Ruehle in favor of removing glands on the plea that such removal may prevent phthisis is unworthy of consideration in discussing this mode of treatment," that is, by excision These opinions seem to differ considerably, but certain deductions can be made from them There is an acknowledged possibility of constitutional infection from strumous glands The virus, if it becomes thus generalized, can only do so by way of absorption It is then pertinent to inquire, Why endeavor by external applications to promote resolution of enlarged cervical glands?

Very likely we all breathe daily into our lungs the bacilli of tubercle, and yet do not become consumptive, because, presumably, our bodily condition is such as repels the invader But the sufferer from tuberculosis of the cervical glands might, as has been seen, naturally be supposed to exhibit a predisposition to tubercle If, by invigorating his system, we get him into such a state that nature of her own accord absorbs the disorganized tissues, we may be content; for she probably will do it with impunity Experience shows that this is often the case It does not, however, commend itself to my judgment to seek, even in the first stages of the malady, by local irritation, such as the application of various forms of iodine, or by blisters or electricity, as some recommend, to excite an artificial resolution, if I may so express myself It may be added that the attempt is often futile If *general* stimulation fails, then we should resort to extirpation

The only occasion which seems to me to call for local application is where there is pain, heat and swelling, and as yet no certainty that suppuration has taken place Such glands should be treated with a cooling wash until they either abate or else present clear signs of pus

By first improving the general health there will little time be lost Possibly some or all of the glands may be absorbed If not, operation will take place under much more favorable auspices

Glands which are in the first stage and freely movable can be quite readily cut out. The incision should not be very long. Violent tearing of the surrounding tissues, besides other things, brings danger of troublesome periadenitis. The cheesy glands (which are nodulated, or have perhaps suppurated and are fixed to the skin and to each other) are usually best extirpated with a spoon. Treves has found the thermo cautery very serviceable. In cases where a subcutaneous abscess has formed it is often a much more ready than satisfactory method to make a simple incision. Pus should indeed be evacuated without delay, but a careful search will quite frequently discover a sinus leading from this superficial abscess to a cheesy gland deeper in, which itself must be eradicated. Teale praises Bigelow's sinus dilator for such operations. Antiseptic precautions are advisable and iodoform makes a good dressing. Drainage is usually necessary. Healing is promoted by obtaining rest for the parts, as by a leather or gutta-percha stock, outside the bandages.

The different manifestations of scrofula are said to be somewhat antagonistic to each other, so that "the particular scrofulous malady any given patient presents would appear to protect him from any other outcome of the disease for at least the time being." This need not, however, prevent operation, for there is practically no danger that the eradication of scrofulous glands will indirectly excite caries or tumor albus and the like elsewhere.

SOME OBSERVATIONS ON HEALTH RESORTS[1]

BY E. O. OTIS, M.D.,

OF BOSTON

It is not with the expectation of presenting anything new upon the subject of health resorts, that I write these few notes, but rather with the hope that possibly I may render some aid, by means of the following suggestions and record of personal observations, limited though they may be, to the family physician who is called upon, as so often unfortunately he is, in this climate, to recommend a proper resort to patients suffering from pulmonary troubles, for they compose the majority of those who seek a new clime.

The subject of climatic cure is a many-sided one, and there are many and diverse opinions as to what constitutes a suitable resort for those with delicate or diseased lungs. I have only to refer to the excellent paper of Dr. Harold Williams, in a recent number of the *Boston Medical and Surgical Journal*, to show the variety and conflict of opinions which exist upon this subject. The general fact, however, remains that thousands have had their lives prolonged or saved by a timely resort to some one of the many places in this country, more favored by nature as to climate than this bleak New England coast.

I am not a partisan of any special portion of the country or any place, as a universal elysium for all those afflicted with lung trouble. On the contrary, I believe that each individual case should be carefully considered in all its aspects, and be sent to that place and climate which seems best to meet its own especial needs and requirements.

One person has little vitality and is always pinched with the cold; such a one obviously will do better in a moderately warm climate, like Southern California or Florida. Another case will endure a certain degree of cold, and will thrive in a locality of lower temperature, like Colorado or Asheville. Again, the digestion may be at fault, and it is of primary importance that a place should be selected where a good table may be depended upon, even if something has to be sacrificed as to the climate. Moreover, the mental condition and temperament must not be disregarded, and the kind of life the patient has been leading. One person requires much diversion, and would be wretched in a quiet, secluded place, but contented and happy in a more lively one, like St. Augustine, for instance.

Companionship is also an important element, and with pleasant, genial associates, one will often make greater gain in a less favored locality, than with the lack of them in one more nearly approaching the ideal climate. The opportunities which different resorts offer for varieties of exercise are not to be lost sight of, as well as the favorite form of exercise of the patient. Happy and fortunate is the consumptive, as well as any other man, who has a hobby which will give him exercise in the open air, be it fishing, gunning, rowing, or horse back riding. I believe that the cause of many of the unfavorable results in cases which have been sent to health resorts of acknowledged worth, is the neglect of carefully considering all these factors.

Of course, it goes without saying, that due attention should be given to the hygienic condition of the locality determined upon, and also, that the fundamental principles of all health resorts are to be borne in mind, namely: Pure air, dry soil, and abundant sunshine. Elevation, dryness, and equability are often, I believe, of secondary importance, and are to be taken into account rather when the requirements of the individual case are being considered.

There should be at hand, also, in every health resort, a reliable physician, with whom, if necessary, the home physician can communicate concerning his patient.

I am of the conviction, as I believe all are who have given much attention to the matter of climate, that the best results are obtained by as long a continuous residence as possible in the place and climate which has been found to suit the case. It takes a long time to become acclimated if the change is at all radical, as from a cold to a warm climate, or from a low to a high elevation, and after that, comes the benefit and improvement, and so long as that continues, it is better to remain in the chosen resort.

Still, there are many whose conditions and circumstances are such, that the stay away must be limited, and the number of places from which to choose, restricted. In order, then, that the most good may be accomplished from the time allowed, all the greater care must be given in the selection of the resort from among the ones possible to the case in question.

---

[1] Read before the Section for Clinical Medicine, Pathology and Hygiene of the Suffolk District Medical Society, January 13, 1886.

Indeed, so many points have to be thought of in choosing a new home for the man of weak lungs, that I have almost come to the conclusion that no physician has any right to advise a patient to go to this place or that, unless he has first visited it himself and thoroughly investigated its advantages and defects. Recently, a young lawyer came to me and related his experience in being sent to a health resort. After it was determined, from the condition of his lungs, that he must go away, the advice as to a new climate was something in this wise: "Some say this place is good, others that, I know nothing of any of them. You may find the Tennessee Mountains of benefit, but I know nothing about them, have never been there, you can go and try them." So he went, and after numerous vicissitudes, he fell to living a complete out door life, much of the time on horse back, and came home apparently well, and has remained so for several years. Such hap hazard advice, however, will not always have such fortunate results.

"Happy the patient," says Youmans,[1] in a recent article on "Thomasville as a Winter Resort," "advised to change his climate when the physician knows enough to give him intelligent instruction as to whither he shall proceed. Does he need a milder or high temperature? a damp and relaxing, or a dry and bracing air? an inland location or the seaside? a valley or a mountain? Should he try Bermuda or Aiken, or Nashua or St. Augustine, or Asheville, or any of the score of resorts recommended for pulmonary invalids? If the doctor settles the point, it is well, if not, the patient must take his chances, and do the best he can to settle it for himself." Going on to relate his own experience, he says: "With lungs badly out of order, everybody said I must escape the severities of a New York winter by going somewhere. I advised with several eminent pulmonary experts, who agreed that it might be a good thing to get away, but did not seem to think it made much difference where I went."

If specialists continue to multiply, perhaps in the future we shall have the specialist on climate. One who has visited the different health resorts and made careful observations, not only as to any particular climate, but of all the accessories of the place—food, sanitary condition, means of exercise and amusement, manner of reaching it, and so on, and who, moreover, will give an unbiased opinion, instead of the half truthful, exaggerated reports which local partisans give of the place they are personally interested in. In a pamphlet before me, just received from Thomasville, Ga., I quote the following as illustrative of this exaggeration: "The fact is well recognized that a damp atmosphere is what a sufferer from pulmonary trouble should avoid, and it follows, that to obtain the greatest amount of good effects from the presence of the fragrant pines, the breezes that waft the balsamic odors abroad must be dry, and themselves inodorous. In order that these conditions be fulfilled, it is essential that large quantities of water be absent, and the surface of the country be high and rolling. A fulfilment of these conditions is impossible in Florida, surrounded, as the State is, *on three sides by the ocean*, with its land surface but a few feet above the level, a dreary waste of interminable swamp, intersected by sluggish streams and marshy lakes. Perched on her elevated position, Thomasville can lay claim to the advantages of *a dry climate and thorough drainage*, and her claims have secured the recognition of the most eminent physicians of the country who have made pulmonary troubles a study."

Again, in an article entitled "Marion County, Florida: An Ideal Winter Climate," by Dr. Maxwell, of Ocala, published in the *Medical News* of December 19, 1885, the author, among a number of very loose statements, makes this assertion: "It is capable of demonstration . . . that Florida possesses the essentials (of an ideal winter climate), in a higher degree than any country now known," and as a part of this demonstration, he introduces a table of mean relative humidity, compiled by Dr. Kenworthy, from the inevitable Signal Service Reports, which shows, he says, "that Jacksonville, in the matter of dryness of air, compares favorably with the popular resorts in all parts of the world," the table given, containing the names of thirteen places only, three being in Minnesota, three in Florida, two in France, and one each in Nassau, New Jersey, Georgia, Dakota, and Massachusetts. If the Doctor had included Denver, for instance, in his list, he would have found its relative humidity some seventeen points lower than that of Jacksonville.

I will now give some notes and bits of information upon a few health resorts I have visited in the South and elsewhere, and I trust I shall be pardoned if I seem to give some petty details, even to the noting of boarding houses, for such information is often of much assistance in settling the perplexing question of a new home and climate.

The Southern resorts can roughly be divided into those of the coast, interior, and mountains, and with the exception of the latter regions, are generally regarded as winter homes for invalids, but the rule of continuous residence, before mentioned, will hold good, I believe, even of many of these Southern localities. The mountainous regions, embracing the Alleghany, Blue Ridge, and Cumberland Ranges, are considered more appropriate for the milder portions of the year, but here, again, I would advocate the above rule for, at least, portions as far south as Asheville, unless the idiosyncracy and condition of the patient were such as to forbid a moderately cold climate.

Of the coast resorts, places on the East or West side of the Peninsula of Florida are, perhaps, more generally selected, and whether the Atlantic or Gulf of Mexico shore is the more favorable, seems to be a matter of opinion. As the prevailing winds are East, it is said that the Atlantic coast gets the purer air direct from the ocean, while it reaches the Gulf coast after blowing over the peninsula, and is, in consequence, more or less vitiated. Of course, the climate of all sea coast resorts is a more or less moist one, which, in adapting a climate to the individual case, is a factor to be considered.

---

[1] Popular Science Monthly, December, 1885, page 188.

One fact I desire to emphasize, and I might as well mention it here, namely, that, in my experience it is exceedingly difficult to obtain good food in the South. The meat and bread are poor, as a rule, and the coffee, with few exceptions, execrable, and from the fact that there is very little grazing, the milk is poor, if, indeed, it can be obtained at all. The houses where good board is obtained are generally kept by Northern people.

On the Atlantic coast, St. Augustine is the best-known resort, and it has much to recommend it. The soil is sandy, and the days, so far as my experience goes, are generally sunny and delightful. The mean temperature is 58° in the winter, and 68° in the spring. The number of clear days for the whole year is said to be 235, which I should very much doubt. Artesian wells have recently been sunk, and the city is now supplied with good water in place of the surface water formerly used. It is an attractive place on account of its picturesque, quaint architecture, the old fort, sea wall, and barracks, and the presence of a military band adds much to the pleasure and entertainment of the exile. There is also good sailing and pleasant water excursions.

If I may be allowed to give a couple of names, I will say that any one who can obtain accommodations at Miss Hasseltine's on St. George Street, and have for his medical adviser Dr. Adams, will be well cared for. As to malaria, I have not much doubt as to its existence pretty much all over the South, but I saw very little evidence of it in St. Augustine.

If one desires to go still farther south on the Atlantic coast, the little town of Daytona on the Halifax river, was highly extolled to me for its agreeable climate, by a resident of the place.

Going over to the Gulf side, I will speak of Tampa, reached by railroad direct from Sanford. In itself, it is not very attractive, the streets being very sandy, which renders locomotion uncomfortable. The bay, however, is delightful, and the excursions upon it, and up the Manatee River, and to Egmont Key are charming. So far as one's sensations go, the air seems delicious.

Bordentown, on the Manatee River, seemed to be a quiet, pleasant retreat. I believe it is on the Gulf coast, a little way from Tampa that a location for a sanitarium has been recently selected. On the line of the railroad going from Sanford to Tampa are many attractive places in the pines, Orlando, Winterpark, Longwood, Altamont, and Kissimmee, the latter prettily situated on a lake of the same name. Many find health and comfort on the St. John's River, but it seems to me that malaria must be more prevalent there than in places away from the river.

Anywhere in Florida one is pretty sure to find conditions under which he can lead an out door life, *which answers* one of the primary requisites for a health resort. Still the low, and in many portions, swampy character of the soil is a serious objection to its choice as a health resort in many cases.

About twenty miles inland from Charleston, S. C., is a resort much in favor with the Charlestonians, called Summerville. It is far enough away from the coast to escape the frequent east winds, and has a mild, equable temperature. It is in the midst of the pines, and has a pure air and sandy soil. From my experience, however, one must have a good digestion if he would gain any benefit from a sojourn here. There is frequent daily communication with Charleston, and the diversion of a run to the city is an added attraction to the place.

Fortress Monroe or Old Point Comfort does not seem to me to be altogether favorable for a continuous residence, but rather for a limited stay in the spring or autumn. The soil is clayey, the weather uncertain, and fogs are frequent. This opinion is fortified by that of one of the military surgeons whom I met there. The exceedingly attractive and unique life which one finds there, however, and the many excursions by land and water mitigate very decidedly the unfavorable climatic conditions, and succeed in drawing the patient out of doors and out of himself. The peculiar Indian summer days which are frequent there are particularly soothing and restful. For those who cannot afford hotel prices, and who desire greater quiet and seclusion than can be obtained at a large hotel, I will give the name of a good boarding house, the only one in fact on the reservation. It is that of Mrs. Eaton, near the water and opposite the Fort. On the Hampton river, opposite the beautiful grounds of General Armstrong's Normal Institute and the Soldier's Home is the boarding house of Daniel Cock, of good report, where there are good opportunities for rowing. It is, however, too far away to allow one to enjoy the diversion which the Fort life offers.

To jump from the South to the North, I wish to say a few words in conclusion, upon the Adirondacks, where patients not only spend the summer, but quite a colony now the winter. Dry it is not, judging from my experience the last summer, and the diurnal variations of temperature are quite great. But despite all this, so far as my observation has extended, consumptives do remarkably well there, provided there are no very acute symptoms. The air is bracing and pure, and the out door attractions numberless. Everything conduces to keep one in the open air, and persuades to much exercise. The grazing is good, and consequently the milk is abundant and rich. The boarding houses are often poor, but good ones can be found, as all who have made trial of the Mirror Lake House, at Lake Placid, can testify. I do not know that it makes much difference where one goes in the Adirondacks in the summer; perhaps the portions of about two thousand feet elevation are the best. If one is strong enough, and the digestion is good, camping out probably gives one more pure air than can be obtained in any other way.

Saranac seems to be the winter home for consumptives in the Adirondacks, and has the sanction of Drs. Loomis and Trudeau. It is better protected from the winds than other places, and commands a good physician. Near by the village of Saranac is the sanitarium recently established—a most admirable charity. It consists of a large main building and several cottages and tents, and, at a small price, one can obtain every needed comfort. The only objection, if it is one, is bringing together, in such close proximity, a number of consumptives. This did not seem, at least, to have a depressing effect, judging from the cheerful appearance of those I saw there. The sanitarium is kept open all winter, and I have at hand a letter from a lady who has been an inmate of the institution all summer, who wrote me that she has gained so much she proposed to spend the winter there. It was quite noticeable how many began to gain in weight after coming to the Wilderness.

I do not want it understood that I ignor the numerous other health resorts I have mentioned, or consider those I have the best; I have only spoken of the few I have happened to be personally acquainted with. I doubt not that there are many others far more ideal than any I have mentioned. All know of the remarkable results of the Colorado and New Mexico climatic cure, and of the influence of the climate in certain portions of California, and of the high pine lands of the South, as represented by Aiken; indeed, I think we have in this country a wealth of health resorts from which to choose. I desire, however, to emphasize the fact that there are many other considerations to be carefully weighed in selecting a resort for a consumptive besides the one of the best ideal climate; in fact, that is the best ideal climate for the individual patient which best meets his individual needs, mental and physical. And that in any place where the air is pure, the sunshine constant, and the temperature so adapted to his condition that he can live out of doors, he will improve if improvement is possible.

I will very hastly run over a single case which I think well illustrates the points I have been attempting to make clear in this paper.

In March of last year, I discovered, to my great surprise and alarm, that a member of my family had evidences of consolidation at both apices, accompanied with a moderate rise of temperature. Distrusting my own judgment when thus personally interested, I sought the opinion of Dr. Knight, who very kindly gave it, but corroborated my worst fears. In addition to the pulmonary trouble, the vitality was low, and there was much dyspepsia of many months' standing. The outlook indeed seemed dark, the prognosis grave. Many weeks of trying weather still remained, and I determined that an immediate change of climate was imperative, and that the harsh spring winds must be avoided. The first requisite was such a climate as would enable one to exist with the least exertion, and lead an out-door life. Moreover these conditions must be obtained with as little outlay of strength as possible on the part of the patient. I therefore went with my patient to St. Augustine, reached from Washington in about a day and a night. There I found delightful weather and sunny days, where a delicate person could live out of doors from morning to night, with perfect comfort. Damp no doubt it was and low, far from an ideal climate for a consumptive one might say, but it exactly fulfilled the conditions required for the patient in question, and before the month of April was over, she could walk about the old town, and take a lively interest in what was going on, whereas on her advent, she could hardly get across the street, and was indifferent to surrounding scenes. The lungs remained much in the same condition, to be sure, but the strength was returning, and the drooping spirits had revived.

At the beginning of May, we gradually retraced our steps North, following the strawberries. At Charleston it was the season of roses, and out door life was delightful. Every day brought an excursion with it. Add to this, pleasant companions, and again, we had an ideal climate for the especial requirements of this especial case. Loitering along we finally reached Fortress Monroe in its pleasantest season, and here several weeks were spent with benefit to body and mind. Now it seemed to me that the general condition had so much improved that a more bracing climate might with safety and benefit be tried, so our next move was to Lake Placid in the Adirondacks, 2000 feet above the level of the sea. My hopes were realized. From 103 pounds, the weight went up to 120, the dyspepsia almost entirely disappeared, and the consolidation began to clear up. So much had been gained at the end of October that it seemed to me still more might be ventured, and after an interim of two or three weeks, my patient went to Colorado, where she now is, and from whom I have the most encouraging reports of her well being and steady improvement.

MEDICAL PROGRESS

Viburnum Prunifolium in Abortion.—Dr. W. Macfie Campbell, of Liverpool, says: Since the publication of Dr. Wilson's paper in the *Liverpool Medico Chirurgical Journal* of January, 1885, I have had the opportunity of testing the use of viburnum prunifolium, so much vaunted in America, in several cases of threatened miscarriage, and I can entirely endorse the good opinion he has formed of it. Nothing, probably, in midwifery is more disappointing than the ordinary routine-treatment of miscarriage by opium or Indian hemp on the one hand, or ergot on the other. For these drugs as often act in the way contrary to the prescriber's intention as in accordance with it. How often has a dose of Battley's solution, administered to arrest uterine action, and give rest and ease from pain, been followed by immediate and severe expulsive pains, while the attempt to empty the uterus by a dose of ergot has resulted in a perfect calm, and a disappearance of symptoms.

It is a comfort thus to have some hope of success in dealing with such a condition as miscarriage; and although I have so far only the notes of six cases, of which five were successful, yet, these five being consecutive, and the effect exactly following the administration of the remedy, I have no hesitation in my own mind in giving the credit to the viburnum. The case of failure was my first.

Case 1.—Mrs. B., two months pregnant, had discharge of blood, with uterine action. She was treated in the usual manner, with opium and rest for two days, when extract of viburnum, in two grain doses, three times a day, was ordered. There seemed no effect upon the pains, the os continued to dilate, and the uterus was soon empty. Perhaps the dose was too small[1], at any rate, I had lost two days, which I take to be the reason of the failure

Case 2 —Mrs H , pregnant for the seventh time, two months and a half, was awakened by a gush of water early one morning, followed by a bloody discharge On examination, the os was soft and dilatable She was kept in bed, and given at once three grains of extract of viburnum every four hours There was no return of bright blood, and the discharge gradually ceased The relief to the pain after the first dose was in this case very marked

Case 3 —Mrs B , in her sixth pregnancy, one night during the fifth month was awakened by the "breaking of the waters," the escape being sufficient to saturate her night-dress and bedclothes This was followed by pains I saw her in the early forenoon, and gave three grains of the extract three times a day, and there was no further symptoms

Case 4 —Mrs G , in the fifth month of her second pregnancy, had a bloody discharge, with uterine pains The same dose was used, with the same good result

Case 5 —Mrs W , in the second month of her sixth pregnancy, had already had two miscarriages Two grains of extract of viburnum, three times a day, gave relief, as also a month afterwards, when the same threatening symptoms appeared

Case 6 —Mrs S , first pregnancy, fourth month This case was particularly interesting from the fact that miscarriage had been imminent in her case at each monthly period The first and second attacks occurred in America, when she was given viburnum, and her medical man provided her with a large store of the liquid extract, which he told her was unknown in England She had an attack at sea, and in due time in Liverpool, and was pleased to discover that the drug could be taken in pill, and was equally efficacious, as the liquid extract is very nauseous While I was from home she had another attack, in which she was attended by Dr Westby, who considers she was only saved from miscarriage by the viburnum During this last attack, she took her pills five and six times a day, in fact, her faith was such, that she would have taken too many Bromide of potassium was also given to allay nervous excitement

Two other cases turned up during my absence, both of which completed their miscarriage, and I cannot help feeling that, if they had been treated with viburnum, the result would have been different One sent for Dr Westby on the third day, the other was treated by another doctor with opium and morphia hypodermically

It does not do to build too much on the result of these few cases, but I have been so constantly foiled in my endeavors heretofore to prevent miscarriage, that I hope to have found in viburnum the sure arrester of uterine action, which we certainly at present do not possess

As recommended by Dr Wilson, I prescribe the solid extract prepared from the liquid extract —*British Medical Journal*, February 27, 1886

THE MANAGEMENT OF PLACENTA PRÆVIA —At the close of an interesting paper on this subject, DR MALCOLM MCLEAN, of New York, offers the following rules in dealing with placenta prævia

First In any case avoid the application of all chemical styptics, which only clog the vagina with inert coagula, and do not prevent hæmorrhage At the very first, the patient should be put in a state of absolute rest—body and mind—and a mild opiate is often desirable at this stage to quiet the irritation

Second Inasmuch as the dangers from *hæmorrhage* are greater than all else to both mother and child, at the earliest moment preparations should be made to *induce* premature labor, and labor being once started, the case should be closely watched to its termination by the accoucheur

Third In primiparæ, the mothers with rigid tissues, the *vagina* should be well distended, by either the colpeurynter or tampon, as an adjuvant to the cervical dilatation

Fourth In the *majority* of cases generally, and in all cases especially where there is reason to believe that rapid delivery may be required, it is more safe to rely upon the *thorough*, *continuous* hydrostatic pressure of a Barnes' dilator than on pressure by the fetal parts

Fifth Where the implantation is only lateral or partial, and where there is no object in hurrying the labor, bipolar version, drawing down a foot, and leaving one thigh to occlude and dilate the os, may be practised according to the method of Braxton Hicks, except in cases where the head presents well at the os, when

Sixth, the membranes should be ruptured, the waters evacuated, and the head encouraged to engage in the cervico vaginal canal

Seventh In the majority of cases, podalic version is to be preferred to application of the forceps within the os

Eighth In some cases, in the absence of sufficient assistance or the necessary instrument, the complete vaginal tampon, in part or wholly of cotton, may be applied and left *in situ* until (within a reasonable time) it is dislodged by uterine contractions and the voluntary efforts of the mother In case of favorable presentation—occiput or breech—the tampon will not materially obstruct the descent of the child, and in some cases the tampon, placenta, and child will be expelled rapidly and safely without artificial assistance

Ninth The dangers of septic infection by means of the tampon or India rubber dilators are so slight, if properly used, as not to be considered as seriously impairing their great value

Tenth Whenever it is possible, dilatation and delivery ought to be *deliberately* accomplished, in order to avoid maternal lacerations

Finally As cases of placenta prævia offer special dangers from post-partum hæmorrhages, septicemia, etc , the greatest care must be exercised in every detail of operation and nursing, to avoid conveying septic material to the system of the mother

Absolute cleanliness, rather than chemical substitutes for that virtue, should be our constant companion in the practice of the obstetric art —*American Journal of Obstetrics* March, 1886

---

[1] In repeated large doses it is apt to give rise to headache

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible, remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, MARCH 20, 1886

THE DEATH OF DR AUSTIN FLINT, SR

Of the many distinguished physicians of America, distinguished both as original thinkers and clinicians, none have risen to a higher place in the esteem and respect of the professional men of their country, and indeed of medical men the world over, than AUSTIN FLINT For years his name has commanded the respect due to high professional attainments wherever medicine is known as a science The esteem in which he was held abroad may be known by the fact that he was selected to deliver the address in Medicine at the next meeting of the greatest medical association in the world—the British Medical Association, and the estimation placed upon his professional ability at home was shown by his being chosen as the President of the Ninth International Medical Congress, which will meet in the City of Washington in 1887

"Nothing is more estimable," says Voltaire, "than a physician who, having studied nature from his youth, knows the properties of the human body, the diseases which assail it, the remedies which will benefit it, exercises his art with caution, and pays equal attention to the rich and poor" Such a physician and man was Dr Flint a man of great professional learning and attainments, a student of nature, both healthy and diseased, a great thinker and clinician, of a kind and even temper, refined in conversation and manner, great of heart, magnanimous and courtly, not given to criticisms of his professional brethren, not a man who

> "For the poor renown of being smart
> Would leave a sting within a brother's heart"

How aptly may be applied to him the words spoken by him of the lamented Gross his intimate friend "His life, from the beginning to the end of his long professional career, was a life of work —work as a student, a writer, a teacher and a practitioner From first to last he was a diligent student If in his advancing and advanced years he held tenaciously to opinions previously formed, it was not from any lack of knowledge covering recent views, but because they failed to subvert his convictions To hold fast to these after due deliberation was a strong mental characteristic His was not a mind to be carried away by every wind of doctrine He may have been open to the charge of undue tenacity of convictions, but, if so, it was not from a pride of personal opinions, but from a reluctance to relinquish aught that he had been led to believe was true" His life since he began the practice of his profession in Northhampton, Mass, in 1833, was one of continued study of and devotion to medicine, and what he has done to elevate American medicine and medicine as a science is too well known to require repetition here From the very first he made himself known as a practitioner and as a valuable contributor to medical literature His kindness of heart, natural refinement and gentleness enabled him to escape the censure which men so often pay as a tax for being eminent His untiring energy seemed to carry the conviction that "it is better to wear out than to rust out," and his application of his rich experience to present work showed that he was always making his present and all his future the fruit of all his past

Dr Flint's life as an author was singularly successful Few American writers, of any kind, had a style so simple, a diction so faultless And in his success we have a most brilliant example of the truth, which he himself recognized and uttered, that those who aspire to success as authors must begin to write early "How many," said he, "who cherish such an aspiration in the dim future, remain content with present inaction! Continued procrastination is equivalent to indefinite postponement, and the latter to inability Authors in Medicine do not spring like Minerva from the head of Jove" While, in a certain sense, he cannot be called a voluminous writer, his contributions to medical literature were many and very valuable It is probable that no medical man of the century has written so much with so little in it of questionable value As if recognizing that "learning without thought is labor lost, and thought without learning perilous," he combined the two in a manner that is worthy of all imitation All that he wrote was written carefully—as was all that he did—as though there was to be no subsequent retraction and correction of errors made in haste "Reading maketh a full man, conference a ready man, and writing an exact man," and how full was his knowledge, how ready his hand, mind, and pen, and how exact his writings! In the most remote corners of the earth, wherever the science of medicine is known, read or taught, his writings are known, and with them his fame has gone His life is an illustration of the fact that the busiest practitioner may perform great literary labors in conjunction with the other occupations which claim precedence, and are so irregular and time consuming He might have written more, let us be thankful that he wrote so wisely and so well

His success as a practitioner was not less, perhaps, if possible, greater than that as a writer Indeed, it is difficult to say whether he was greater as an author, a teacher or a practitioner, or whether he was more devoted to his profession or his patients In the interests of his patients he abated no energy, nor hesitated to brave any exposure, to make any sacrifice of time and rest, or spend hours in close study and scientific experimentation His manner and language as a teacher were lucid, straightforward and interesting, his voice clear, and he had an earnestness that rarely failed to carry conviction, both to students in the lecture room and his confrères in the medical societies of which he was a member

To the American Medical Association—of which he was the President in 1884, and to which he was ever and at all times most loyal—Dr Flint's death is a severe loss When his State Society formally repudiated the principles of the Association, he promptly severed his connection with the State Society, and was chiefly instrumental in organizing the New York State and County Associations Nevertheless, he was far removed from the medical politician For this his principles were too high, his nature too generous, and his heart,

"Open all day for melting charity,"

too great His long experience with human suffering had caused him to express the wish that he might be spared a long and painful illness when his alloted time should come, and his wish was granted His last work was in the fulfilment of his duty to his pupils—the second duty of every teacher His first—the duty to his patients—he had always performed, as he had that to his professional brethren and his profession His work, which bears the stamp of his individuality, and his character remain imperishable and priceless treasures to Medicine

> "His life was gentle, and the elements
> So mixed in him, that Nature might stand up
> And say to all the world, This is a man!"

THE RESTRICTION OF FLUIDS IN THE TREATMENT OF OBESITY

In our previous issue were set forth Sée's views concerning the inadvisability of limiting the consumption of water by individuals desirous of reducing their superfluous fat As was seen, he is diametrically opposed to German therapeutists As Oertel's methods of diminishing the body fat are attracting universal attention by reason of the striking success that has attended his efforts, we have thought it would be of interest and profit to give a statement of his position with regard to that taken by Sée The eminent French author just named may oppose by theory and practice the views expressed by the Germans at their Congress in Wiesbaden, but he cannot gainsay the brilliant results they have achieved

Oertel insists strongly upon the advisability, nay, necessity, of curtailing the daily consumption of water, but in his published utterances he repeatedly cautions against reducing it below what is required by the system to carry off the products of tissue waste Indeed, Sée appears to us to be fighting imaginary foes if he proceeds on the assumption that the German therapeutists urge their point to the extent of recommending a dry diet A glance at Oertel's and Ebstein's dietaries shows that they allow their patients from 900 to 1,300 c c and 1,750 c c of fluids respectively, that is, 30 to 43 ounces (Oertel), and 60 ounces (Ebstein), daily

Dancel, who tried the effect of a "thirst-cure," proceeded upon the supposition that water aids directly in the digestion of fat and in the production of fat out of the food, since the hydrogen of the water combines with the carbonic acid to create fat Oertel bases his reasons for restricting the consumption of water upon the physiological laws governing the accumulation of adipose tissue, as follows Fat is formed along and upon the adventitia of small blood vessels, arterioles, veinules and the capillaries with which these stand in direct connection At points remote from such vessels it never develops Fat does not exist in the blood primarily as such, but as a lipogenic material This, escaping through the vascular walls, collects upon their exterior in the form of minute flakes or globules, and these later on make up the adipose tissue If, as may occur, the lipogenic material forms oil-drops within the interior of the vessels, along their inner surface, these then pass through the vascular coats and are absorbed by the connective tissue corpuscles of the vessels, whose outer coat then appears puffy and infiltrated

There is good ground for the belief that the permeability of vascular walls is enhanced by sluggishness of their contents or stasis of the circulation, and by their distension Hence, the withdrawal of the fluids of the system will, by overcoming vascular distension and stasis, lessen the escape of fat-forming material from the capillaries Furthermore, the reduction of the bodily fluids produces localized anæmia within areas of adipose tissue and the consequent drying up of the vessels supplying these areas with nutrition So soon, therefore, as the adipose tissue is deprived of its nourishment, it undergoes destructive metamorphosis and disappears by absorption The reduction of fat in this way becomes not strictly a physiological, but rather a "physiologico-pathological" one Such, then, are the considerations which induce Oertel to make a diminution of the bodily fluids a part of his anti fat treatment When necessary to reduce the bulk of liquid in the vessels speedily, *e g*, in cases of circulatory disturbances, he resorts to various methods of sweating the patients These were mentioned in an editorial article in THE JOURNAL of October 24, 1885

In his work Oertel refers to two cases in which obesity was strikingly lessened by diminishing the supply of liquids alone No change was made in the diet, and, as the inclement weather of the winter precluded outdoor exercise, the fat was not consumed by oxydization Before the simple restriction of the amount of water consumed was begun, the fat about the mammary regions and over the abdomen was several centimeters in thickness In the course of a few months it had practically disappeared, leaving the integument separated from the underlying structures by only a thin layer of adipose tissue These cases prove the benefit of the withdrawal of water within certain limits in the treatment of obesity Mark! within certain limits, we repeat, that is, sufficient water must still be supplied to further retrograde metamorphosis and elimination of waste products We can but think that Sée mistakes the actual attitude of the Germans on this question in supposing they endorse so great a restriction of fluids as would produce the evil results noted by Jurgensen in his own case Certainly their practice does not differ so widely as his utterances would lead one to suppose

THE SCIENTIFIC ASPECT OF THE AMERICAN MEDICAL ASSOCIATION

In the three preceding numbers of THE JOURNAL we have endeavored to point out the principles on which the National Association was originally founded, the modifications made from time to time as experience demonstrated their necessity, and the marked success achieved in developing a truly National representative organization embracing all ranks, whether specialist or general practitioner, and all interests, social, educational, scientific and practical But there is one aspect in the progress of development that we have not noticed, because its importance demanded a separate and more careful consideration We allude to the establishment of *Sections* in which to prosecute more successfully the scientific work of each annual meeting

During the first decade of the organization of the Association, all the scientific work, such as the reading of reports and papers, with discussions thereon, was done in general sessions of the whole body, numbering from 350 to 1,000 This brief period was amply sufficient to demonstrate that very little progress could be made in that kind of work with such unwieldy audiences during the time allotted to the annual meetings of the Association Measures were therefore early taken to remedy the evil by so amending the constitutional provisions as to restrict the general sessions of each annual meeting to one half of each day, and allow all interested in any particular department of the science or practice of medicine to meet in separate Sections during the other half of each day, and thereby accomplish ten times more work each day than could be accomplished by all meeting in mass The Sections were first organized at the annual meeting of the Association in New Haven, in 1860, so successfully as to give universal satisfaction At that time each Section was permitted to choose its own officers, Chairman and Secretary, at the opening of the first session, and each Section was expected to close its labors with the close of the annual session of the Association each year The increased facilities afforded in the Sections for scientific work caused a rapid increase in the number of papers presented at each meeting, and soon showed two important defects in their practical working It was found that an important part of the time allotted for the first meeting of the Sections each year was occupied in the preliminary work of choosing officers and getting ready to work, and the officers thus chosen and hastily inducted into office were often poorly prepared to perform their duties, and as they regarded those duties ended at the close of the annual meeting, there were practically no officers of Sections in the interim to be preparing the work in an orderly manner for the next annual session

These evils were partially remedied after a few years by adopting a by-law requiring the General Committee on Nominations to nominate and the

Association to elect the Chairman and Secretary of each Section for the ensuing year, and to require the Chairman of each Section to prepare for the general sessions a brief address on the advancements made in the branches included in his Section during the preceding year This change contributed much to give dignity and importance to the officers of the Sections, and increased their efficiency in promoting the amount of practical work done But the Nominating Committee, being composed of one from each State represented in the annual meeting, had but little knowledge concerning the individuals who were most efficient and faithful in the work of the several Sections, and sometimes elected for officers men who had never attended the Sections to which they were assigned more than two or three times, to the neglect of others who had worked faithfully and efficiently in the same Sections for years This led to the conviction that the members of each Section should have the privilege of nominating their own officers, and an amendment to the by laws for this purpose was proposed and is to be acted upon at the coming meeting in St Louis

If the amendment be so drawn as to require each Section to nominate its officers for the ensuing year on the second day of each annual meeting, when the Section is generally the most full and the most favorable time is afforded for making good selections, it will undoubtedly be a decidedly practical improvement It would at once impel those who might be ambitious for official distinction in the Sections to earn it by faithful attendance and good work in the Section itself, instead of giving their attention to the members of the general Nominating Committee Another amendment of the by laws relating to the Sections is worthy of careful consideration The institution of Sections in connection with the Association in 1860 for the better advancement of the scientific interests of the profession, without impairing to any degree the social and educational, was followed by so rapid a development and multiplication of specialties in our country as well as elsewhere, that the time allotted to the Sections each year did not prove adequate for the proper reading and discussion of the many contributions that were offered Nor were the official positions numerous enough to accommodate those more ambitious for advancement And as there has always been a class in the profession, more numerous, perhaps, in the chief cities in the Eastern or older States than elsewhere, who did not like the full representative organization adopted, but advocated a more self electing and narrower governing council, they readily joined with those who did not find adequate room and time for them in the respective Sections, and commenced the organization of National associations of exclusive specialists, incorporating their favorite idea of either a limited membership or more limited governing council, and the whole membership elective only by the society or its council These associations of specialists have continued to increase until, with the National Association of Internal Medicine and Pathology, the organization of which has just been announced, they embrace the entire circle of known specialties Of course the special organizations divert from the Sections of the Association many valuable workers, who cannot well find time to attend both the same year.

If the present proposition for a better mode of selecting officers for the Sections of the Association should be adopted, and another simply allowing each Section to extend the time of its annual session beyond that of the general body whenever work of interest and importance required it, or to hold a second meeting separately at another part of the year if necessary, always reporting the results of their work to the Permanent Secretary of the Association, these Sections would afford every possible facility for the cultivation of any special department of the whole field of medicine that can be afforded by any of the independent special organizations In addition, they would give to the specialists themselves the very great advantage of having all their important papers and discussions early placed before a very large proportion of all classes of the profession through THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, instead of being limited, as now in their Transactions, almost exclusively to the narrow circle of their own members If it be said that THE JOURNAL would not be adequate to the publication of so large an amount of material, the obvious reply is that the capacity of THE JOURNAL admits of any degree of increase that the increased patronage may demand. Further, it is a mutual advantage both to the specialist and non-specialist that they be frequently brought into social contact, and the former be permitted to present his papers before audiences made up in part of the latter, for it is from them that he must derive much of his patronage

Hence, to improve the organization of the Sections and extend the time allowed for their work, as we have indicated, would afford the highest degree of advantage for cultivating the scientific interests of the profession in every direction, and yet preserve and increase the efficiency of the general representative organization for its valuable re unions, fraternizations, and educational advantages, as well as the ready means it affords for harmonizing and concentrating the general sentiments of the profession in favor of such sanitary and other legislation as is required for the interests of the people In the midst of the controversies in regard to Ethical Codes during the last few years, and still more in the dissatisfaction of a few influential parties concerning the action of the American Medical Association in regard to the preliminary organization of the Ninth International Medical Congress, we have heard in certain quarters the most inconsiderate denunciation of the National Association as having passed the day of its usefulness, and many suggestions have been made for a new organization to rival and finally supersede it altogether The plan for this purpose, however, which has been blindly hinted at in correspondence running through a dozen or fifteen years past, and which is at present rapidly maturing, has been carefully kept from open public discussion The plan is simply to complete the circle of National organizations of specialists in such a manner that their entire management will be centred in a comparatively few individuals, yet careful to include as many prominent or influential parties as is practicable, and when the favorable time arrives the whole are to be united by some plan of confederation to constitute one general head, to take the place of the present National organization

It requires but a moderate degree of investigation to see clearly that the execution of such a plan would entirely fail to develop a general organization that would constitute in any sense a representation of the profession of the United States The whole series of special organizations would embrace an aggregate of not more than 1000, three fourths of whom would be specialists from the larger cities, with the whole mass of 50,000 hard working, intelligent general practitioners entirely out, with no part or voice in the matter To call such an arrangement a National organization of the medical profession of this country, would be a misuse of words It would be simply a confederation of organized specialism on the one hand, and an unorganized general profession on the other, with the self complacency and arrogance of the one constantly deepening the prejudices and intensifying the contempt of the other Yet such is the tendency of the discontented elements now losing no opportunity to disparage the truly representative organization of the whole profession, which has been maturing for forty years under the leadership of the American Medical Association

SOCIETY PROCEEDINGS

SUFFOLK DISTRICT MEDICAL SOCIETY

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE

ALBERT N BLODGETT, M D, SECRETARY

January 13, 1886 The meeting was called to order at eight o'clock, by DR F I KNIGHT, Chairman

DR E O OTIS read a paper entitled

SOME OBSERVATIONS ON HEALTH RESORTS

(See page 316)

DR BARNES said that he had been much disappointed in the benefit to be derived from a change of climate to some of the most noted of our resorts This was illustrated by the description of a trip made by a patient of Dr Barnes's who was advised to go for the winter to Bermuda for a pulmonary trouble He sailed from New York in a leaky vessel stormy weather prevailed during the entire passage, and the patient was frequently drenched with salt water A few days after arrival the patient was seized with rheumatic fever, and suffered much He returned after an absence of six weeks, much worse than when he went away, and died a few days after arrival at his home

As far as climate is concerned, in a health resort, there is no doubt of the necessity that the air shall be more or less humid We keep our houses much too hot, and the air is far too dry for health or comfort A house heated by steam is not comfortable unless the temperature be kept much higher than is necessary in a house warmed by open fires, and particularly if there be ample provision for moisture in the air of the room The most comfortable room in our modern houses is the kitchen, because there is always a change of air going on from the frequent opening of doors, and the draught of the range The teakettle is always on the range, and furnishes a constant supply of steam, which makes the air moist, as proved by the frost on the windows Plants will grow in the atmosphere of the kitchen, but they languish in those parts of the house which are supplied with steam heat, or with hot air from a furnace In moist air, a temperature of 68° is very comfortable, while in air too dry, it is necessary to keep the temperature as high as 75° or 80° in order to feel comfortable

DR A H NICHOLS stated that a recent hasty visit to the South enabled him to confirm the correctness of the statements contained in Dr Otis's paper It is a strange sensation to go in a few hours from a temperature of zero to that of 75° The defect, however, of most health resorts is that the climate is not equable This is especially true in the South The climate of California is better in this respect than that of Florida, and that of Southern Europe is better than that of California The *ideal* climate is doubtless that of Ovatava, in Teneriffe The coldest weather ever known there compares with our June, while the warmest weather is much like our July with the warmest days left out A very striking feature of the climate there is the fact that the warmest period of the day is not at noon, as we are accustomed to observe in the United States, but at a time before noon. During the middle of the day, a fog bank rolls in from the sea and covers the land like a huge umbrella, thus effectually protecting the inhabitants from the extreme heat which would otherwise occur. One fact in connection with the southern parts of the United States is quite surprising, that is, that in many places where one would expect to find malaria, the disease is unknown. This is true in particular at some points near the sea where the air is humid, and we find most of the conditions usually met with in malarious localities. The nearness of the sea, with the presence of iodine and possibly ozone, seem, however, to be the agents of protection to these localities from the poison of malaria.

DR. J. AYER remarked that although he had but little knowledge of the peculiar recommendations of the various health resorts, yet it is becoming more and more evident that physicians must inform themselves of the advantages of the different parts of our country, so as to be able to give an intelligent opinion and suitable advice to those needing a change of climate for any purpose. There are no doubt many places as yet unknown, which possess great advantages as sanitary abodes, and the physician should inform himself in regard to them, as a part of his professional education. In Europe, the science of sanitation has reached a degree of perfection as yet unapproached in America. Patients from our own country cross the ocean to obtain the benefit of a change of climate, which our land, with its immense area and variety of physical conditions, would surely supply.

DR. VINCENT Y. BOWDITCH spoke of the great harm which frequently results from the careless manner in which patients are sent away from home to languish in uncomfortable and crowded boarding-houses, destitute of all the comforts to which they have been accustomed at home, and dependent upon the caprice and interest of hotel keepers of all kinds for everything pertaining to their welfare. Then, too, one is liable to be misled by the careless statements of those who describe the various places of resort. Thus, each locality is vaunted as possessing the "ideal" climate, and other localities are misrepresented. Aiken has been highly recommended by many persons, to the detriment of similar places elsewhere. It is true that this town possesses the advantages of high altitude and pine forests, and the air is doubtless of exceptional purity, but even these qualities are not adapted to all cases. While speaking of remote health resorts, we should not omit to mention those near at hand and which are easily accessible. Thus, Wellesley Hills and Sharon are of great service to many cases of pulmonary disease. The location is high, the air dry, and many of the requisites of a noted resort are attainable at a slight expense of time, strength and money. Patients in both of these places often achieve most gratifying results.

DR. E. L. PARKS stated that he passed the winter of 1877–78 in Santa Barbara, which proved to be a most delightful place of residence. There is no malaria in the town or neighborhood. The extreme between the coldest temperature of winter and the warmest of summer is but forty degrees. These statistics are thoroughly reliable, as they were taken by a gentleman, a physician, who was advised to go there for the benefit of his health, which was fully restored. He remained perfectly well as long as he resided in this place, but he could not live elsewhere, and as a pastime he made a series of careful observations upon the meteorological conditions of the place. The relative humidity is a thing which is a source of the greatest disturbance to many delicate patients. Often a patient who cannot live at the level of the sea will be perfectly comfortable at an elevation of 400 feet above the sea.

In a case of this kind the humidity alone is variable, all else remains unchanged. Another thing which is often a cause of disappointment in the effect produced by residence at any health resort is the way in which patients are allowed to make the journey to the new abode. Very frequently a sick person arrives without an attendant, he is not welcome, he may not be able to secure good or comfortable accommodations, and he is entirely at the mercy of those who may be willing to receive him. A case of this kind was known to the speaker, in the person of a gentleman from Boston, now deceased. He came unattended and unknown, he was unable to secure good accommodations, and was not comfortable during his short stay there. Aside from this, he was in a condition quite unsuited to travelling, and should never have been sent from home. A patient may go to Santa Barbara at a certain stage of pulmonary disease, and by a prolonged residence, never less than a year, may quite recover. It is, however, worse than useless to send a patient to Santa Barbara after all the other resorts have been tried. These cases will not be benefited by the climate of Santa Barbara or that of any other resort. When a patient has reached a certain stage of the disease, there is no benefit in change to any other climate.

DR. E. W. CUSHING said that the peculiar geological formations at many of the resorts for invalids, such as various parts of California, Nice, Cannes, etc., allow the patient to choose exactly the situation and the surroundings adapted to his comfort. The country rises rapidly from the seashore to the hills, so that an elevation of considerable magnitude may be attained at a short distance from the town, and within a short time from the sea-level. That it is not the "humidity" alone, or even to any great extent, is now generally admitted. The change of scene, the entire rest, the out-of door life, and the relaxation from all labor, are important factors in the amount of benefit to be obtained from a stay at any health resort. One of the most useful adjuncts to all the other measures which may be adopted is exercise on horseback. Given good food, rest, trees, music and suitable companionship, with the advantages of good society, a sick person will often obtain great benefit from a stay at any proper resort. Throughout the South, however, the boarding arrangements are bad and the accommodations wretched. Another objection to many, if not most "health" resorts is the fact that one place after another fills up with phthisical patients, there is often no suitable water supply, and even more frequently no suitable provision for drainage, and the entire place at length becomes charged with the disease, the rate of mortality rises, and the place is ruined as a health resort

Dr E I Eastman thought that the most important object to be attained is the comfort of the patient A sick person who is sent to a place where many consumptives are herded together, is quite easily depressed, and may die from the moral effect of such melancholy surroundings No doubt each year many persons die in such places who might recover under more cheerful circumstances Above all, in the present state of our knowledge of pulmonary disease, we should avoid the crowding of phthisical patients

Dr Knight said that it was gratifying to see that physicians had begun to use some discrimination in recommending climates The discussion had been mostly restricted to the benefit of change of climate in pulmonary disease, but of course there were many other diseases which might be benefited by an appropriate change

A great and beneficial modification of the custom of sending all cases of pulmonary disease to warm climates has taken place in recent years, a custom which has arisen from giving too much consideration to what might mitigate the concomitant bronchitis There is no doubt of the great difference in the physical properties of different climates, and no doubt that we can favorably modify pathological conditions by taking judicious advantage of them

In selecting a climate for consumptives, the peculiarities of each patient should be considered, his temperament, the stage of his disease, complications, etc If permanent arrest of the disease is hoped for, Dr Knight said that he was always glad if the patient's condition is such as to allow of the selection of a dry mountain climate of considerable elevation If his peculiarities will not admit of this, then a lower altitude, but still a dry and tonic climate, should be chosen It was unfortunate if a warm, moist climate had, for any reason, to be adopted

Dr Herman F Vickery read a paper entitled

ENLARGED CERVICAL GLANDS

(See page 313)

Dr John Homans thought that many other causes may exist for enlarged glands besides those mentioned in the paper Thus, rhinitis, pharyngitis, and tonsillitis may cause enlargement of the cervical glands These are, however, the expression of a general systemic condition, and are not dependent upon the local state of the neck

Dr Barker mentioned the enlargement of the glands of the neck following surgical operations as illustrating another causation of this condition

Dr Vickery said that the enlargement of the glands seems often to be secondary to other conditions Thus, a child pricked the neck with the tine of a fork, to a moderate extent The prick healed quickly, but soon after there was noticed a distinct enlargement of the glands of the neck which proved to be not adenoma, but scrofulous in character

Dr Edward B Lane read a paper entitled

TWO CASES OF CEREBRAL TUMOR, WITH AUTOPSY

Case 1 —James M , 37 years old, was admitted to the Lunatic Hospital August 3, 1885 Married, policeman, was born in Ireland Very little is known of his family, since none of his relatives are in this country Used alcohol daily, would occasionally drink more than he ought, but never incapacitated himself for duty on the Boston police force Is not known to have had rheumatism nor any severe illness previous to last January No specific history could be obtained

In January, 1885, he fell on the street, becoming unconscious and remaining so for half an hour Became conscious soon after reaching home but for more than a week his speech was thick and he swallowed with difficulty No other paralysis was known. Went on duty a month later Then his speech was much improved, but not quite clear Continued to perform his duties as usual until May, when he had a second attack, this time in the house Fell, but did not become unconscious He got up unassisted and sat down It was found that his right side was affected, the hand and leg of that side being weak but not completely paralyzed He was able to walk. His speech was not affected nor his ability to swallow impaired No facial paralysis was noticed He had no headache, either before or after this attack Slept well and ate well Regained the use of his limbs to a certain extent, but could not light a match with his right hand, could write, but his hand was tremulous Returned to patrol duty in two weeks and remained on duty until the middle of July, when he had an attack of vertigo while on the street Was sent home in a horse car Felt ill and stayed at home until admitted to the hospital a fortnight later After the second attack (in May) became irritable, and memory failed somewhat Became suspicious that men talked with his wife, and that she had had visitors

During the last two weeks at home his mental condition degenerated rapidly Memory grew weaker He was anxious to go to the Station house, and would become angry, though not violent, when restrained Delusions of suspicion developed Thought there were men concealed in the house and he procured a pistol and billy to defend his wife On admission, was seen to be a well developed man of medium size Too dull to respond to questions Was able to get about and use his hands fairly well Right eyelid drooped Pupils were equal, tongue protruded to right (probably accidental, as it afterward came out straight), not retracted Eats when fed but will not feed himself Will not stay in bed, and soils the floor Pulse 60 Patella reflex present No enlarged glands Denied syphilis Eyes examined Nothing unusual seen beyond a fulness of the veins of the fundus During the first week at the hospital, condition did not change much Would answer simple questions Had considerable difficulty in swallowing About this time he became comatose, with a temperature of 102 6, and respiration 44 Left pupil dilated He rallied to his former condition in the house He then gradually improved mentally[1] until at the end of the second week he knew his wife and conversed with her, and signed some documents But at no time did he realize where he was nor avoid wetting his bed When asked to put out his tongue would do so after waiting nearly a minute Memory was very weak, would not know his room but would wander about, upsetting furniture, etc After being in hospital a month was able to be dressed, saw an old acquaintance and chatted with him Told him that he had been on his beat that day Difficulty in swallowing almost entirely disappeared and he ate heartily At this time patellar reflex was found to be excessive and ankle clonus present Said he was "first-rate" About the middle of September (six weeks after admission) rapidly grew dull, swallowed liquid with difficulty In a few days febrile action appeared Was very obstinate, resisting everything done for him, fumbled the bed clothes and handled his genitals constantly Temperature varied from 99° to 103° Respiration persisted rapid, gradually rising from 30 to 50 Was very helpless, could scarcely swallow, and was so dull he would not speak, and in eighteen days from the onset of the stuporous condition died

Autopsy twenty hours after death by Dr Gannett Ratio of head to body and cranium to face, normal Calvaria thin The dura everywhere translucent and the sinuses contained dark fluid blood The pia slightly opaque about the convexities Its meshes contained a small amount of clear fluid The brain filled the cavity of the skull and weighed 1402 grms The vessels at the base and in the fissure of Sylvius showed nothing remarkable The pia anterior to the optic commissure showed a slight snuff-colored appearance, and on section showed several opaque grayish yellow globular nodules, varying from one to three mm in diameter, and each surrounded by a grayish-red translucent tissue for a distance of three to four mm These were directly continuous with the pia On the under surface of the right frontal lobe, adjacent to the pia, was a nodule the size and shape of an almond, except not quite so long, having an opaque grayish yellow centre the size of a large pea, and surrounded by a reddish gray translucent material like that already described In the lowest portion of the left temporal lobe at anterior extremity were several yellowish nodules about two mm in diameter, surrounded by a reddish gray translucent tissue At the junction of the anterior and middle thirds of corpus callosum and on the adjoining convolution in the anterior fissure were a series of yellow nodules of two or three mm in diameter arranged antero posteriorly, forming a line about four cm in length These were in turn surrounded by a similar reddish gray translucent material The lateral and fourth ventricles showed in the ependyma numerous fine granules presenting a warty appearance The floor of the left lateral ventricle over the basal ganglia showed two depressions about twenty mm in diameter On section in the left *nucleus caudatus* and in the left *thalamus opticus* were cavities the size of small filberts, formed by a mesh-work of fine lines and containing a snuff brown fluid In the posterior portion of the right *thalamus opticus* were two cavities each about the size of a filbert-meat, and presenting the same characteristics as those described The section of the hemispheres, pons, medulla and cerebellum showed no appearance worthy of special note The pia everywhere readily separated from the brain substance Heart and pericardium showed nothing worthy of note Examination of the other organs showed little of interest beyond diffuse bronchitis and tracheitis, chronic pleurisy and a nodule in the mesentery There was a scar on the penis

Diagnosis of lesions found in the brain Chronic lepto meningitis and œdema of the pia, each to a slight degree only Multiple gummata So called "apoplectic cysts" of the basal ganglia Chronic ependymitis

Case 2 —Mary J , 64 years old, of American parentage, a cloak room attendant, was admitted to the Boston Lunatic Hospital September 3, 1885 With her was sent the statement that she had been hemiplegic for nine days That she was at times incoherent and confused Was helpless and needed hospital care After her death the following history was obtained Family history unknown Seventeen months ago her husband died and his loss caused the patient much grief and worry Since death of husband she has been in very straitened circumstances

For the past six months has complained of severe headache and loss of memory, and when alone in her room would continually talk aloud to herself Appetite was good When not mindful of her loss was as cheerful as ever Continued to attend to her duties in a cloak room and to her household duties until eight or nine days before admission No serious sickness was suspected until she was found one morning to have right sided hemiplegia, to be almost speechless as well as perfectly helpless, having been apparently as well as usual the day before On admission to the hospital was seen to be a very large, well nourished woman She was helpless, having right sided hemiplegia Was very dull, but would answer a few simple questions

For four days after admission was dull and gave unintelligible answers Took a small amount of liquid food when it was placed in her mouth Could not eat, and swallowed liquids with difficulty Was noticed to call things by wrong names At the end of this time she became brighter, was not quite as helpless, could swallow a little better and could speak more distinctly It was now seen that she was partially amnesic, more accurately speaking, she was almost totally unable to recall names It was usually impossible for her to name objects She could not even recall her husband's name Was aware of her defect and seemed much annoyed by it When asked to name a bunch of keys she said "I cannot," then made an effort and pronounced "boots," and laughed at her failure Was then told to say "keys" She made another effort and said, "that is right, skewers," and laughed again But on being prompted a second time she pronounced "keys" properly Physical examination showed the right sided hemiplegia to persist, mouth was drawn to the left, tongue was protruded, straight, however, left eye was turned in, showing probable paralysis of the sixth nerve on that side from pressure, pupils were even, plantar reflex present Ophthalmoscopic examination was impossible Remained in this condition, conscious, but dull and listless, for two days Did not ask where she was nor seem disturbed by her new surroundings She continually complained of thirst She became more dull on the ninth day, and on the morning of the tenth was found comatose Had been vomiting Made automatic movement with left hand only Pupils were much contracted and pulse was 96, temperature 101 5 (P M) Coma lasted only twenty-four hours, and during the following day she gradually grew brighter and was as well as before the attack Condition of side, however, did not improve She gradually grew more intelligent and for a short time knew where she was, but probably did not realize the significance of it Remarked that she must be a difficult patient to care for, she was so heavy and helpless She became more restless, and would kick the bedclothes off with left leg Could use both hands a little Required to be watched or she would lie uncovered Gave no reason for it Was at this time asked if she were hungry and she replied "yes," was asked if she were thirsty and she said "yes," and to test the truth of her statement was given bread and milk Declined it saying she wanted something "brighter" She seemed aware she had not said what she meant When asked if she would prefer water seemed pleased and assented At another time asked for "fire," and then shook her head When asked if she meant water, said "yes, fire," and laughed at her blunder When "water" was slowly pronounced she repeated "w-water" Memory was much impaired, she could not remember whether she had eaten two hours after doing so On the seventeenth day, and a week after the brief period of coma, the patient grew more dull and helpless Would not swallow liquids, and gradually became comatose, sweating profusely and occasionally vomiting a greenish watery fluid Pulse was strong, but uneven and rapid Respiration was labored and noisy, tracheal râles persisting until death She continued in this coma five days, death being hourly expected Died on twenty-third day

---

[1] His mental condition was that of contentment. Speech was that of a general paralytic No delusion of grandeur was expressed

Autopsy was made twenty-two hours after death by Dr Gannett Nothing unusual was observed about the calvaria or dura Sinuses contained soft coagula The convolutions of the brain flattened and sulci obliterated, surface of pia dry The brain completely filled the cavity of the skull and weighed 1550 grms At a point in the left fissure of Sylvius where the middle cerebral gives off its numerous branches was a dilatation the size of a pea At a corresponding position in the right side was a parietal dilatation the size of a pin's head In the basilar artery was an opaque yellow patch in the intima about three mm in diameter The right lateral and fourth ventricles showed nothing remarkable The floor of the posterior portion of the left lateral ventricle was elevated, rounded and quite tense to the finger On section of the hemispheres there was found in the white matter of the left hemisphere posteriorly a rather firm opaque grayish-yellow nodule, the size and shape of a medium sized peach, showing on section here and there spaces filled with a thin cream like fluid The brain substance on the periphery of the nodule for a distance outward of about four mm showed to a very slight degree a punctate appearance The white matter lying just beneath the nodule was of soft consistency and grayish white color The white matter in general was rather pale, surface of usual degree of moisture, the cortex not remarkable Section of the basal ganglia, pons, medulla and cerebellum showed no appearances worthy of special note Examination of the other organs revealed nothing of interest beyond a large cyst occupying the upper third of the right kidney, pelvic calculi, and two firm gray nodules the size of a pea in the wall of the uterus A pedunculated polypoid tumor in the cavity of uterus Microscopic examination of the tumor has been begun by Dr Gannett, but owing to the hardening not being yet completed, he is unable to give a definite opinion He has kindly consented to offer the *probable* diagnosis of *vascular glio sarcoma*

Summary —In the first case, we have a young man with cerebral syphilis resulting in paretic dementia From the onset of mental derangement the course of the disease was unusually rapid The hemiplegia and the mental condition of hebetude and delusions cannot be said to follow the presence of the gummatous tumors, as the hæmorrhage in the caudate nucleus and the lepto meningitis are the lesions more usually associated with such symptoms No special set of symptoms can be referred to the tumors

The second case was remarkable in the fact that a large tumor must have been gradually developing in the mass of the cerebrum, causing for a long time only minor symptoms A woman able to do her daily work, neither general nor mental health being sufficiently impaired to attract attention, suddenly becomes comatose and hemiplegic She recovers consciousness and suffers two more relapses of coma and dies During the intervals of consciousness she is seen to be suffering from a partial amnesia Amnesia (oftener partial than complete) has been found to be associated in cases reported by Werwicke and others, with lesions in the occipital lobe The question might arise as to the possibility of there being an aneurismed dilatation causing the symptoms This is hardly tenable when we consider the great extent of pressure required to cause both hemiplegia and amnesia The vascular changes in the tumor must explain the suddenness of symptoms

Dr J J Putnam stated that cases of tumor of the brain often present no definite or recognizable group of classical symptoms, by which their location, or size, or frequently their existence, even, may be determined Dr Putnam mentioned a case seen in consultation with Dr Adams, of Watertown, in which almost all the tissue of the pons was replaced by a large vascular glioma

Dr P C Knapp asked the seat of the tumor?

Dr Lane stated that it was seated below the basal ganglia, and was evidently pressing upon the crus cerebri

Dr Cushing asked if the early recognition of the disease and its treatment by anti syphilitic measures is of any avail in cases of cerebral syphilis?

Dr Lane stated that no case is known in which the syphilitic lesion in the brain has been benefited by any form of treatment

Dr Goldsmith has never seen a case of improvement in such cases

Dr Putnam remarked that probably that does not mean that no case may be relieved by treatment

Dr Lane stated that no case in which the disease was of a sufficient degree of severity to require treatment in an insane asylum had ever been known to be benefited

Dr Putnam added that in the early stages of congestion, before deposits of syphilitic growth have taken place, it may be possible to improve the patient's condition When chronic paralytic dementia has occurred there may well be no improvement from any mode of treatment

Dr Knapp added that in cases in which any mental derangement exists there is no hope for any form of treatment

CHICAGO GYNÆCOLOGICAL SOCIETY

Stated Meeting, Friday, January 15, 1886

The President, Daniel T. Nelson, M D, in the Chair

W W Jaggard, M D, Editor

(*Continued from page 304*)

Dr E J Doering read a report of

A CASE OF HYDATIDIFORM PREGNANCY

After a brief discussion of the etiology and pathology of cystic degeneration of the chorionic villi, Dr Doering related the history of the following case

Mrs W D P, a cultured lady, of slender physique, 21 years of age, was attended by me in labor fifteen months ago, and delivered by instruments of a healthy boy weighing ten pounds Her general health has been good She has had no miscarriages either previous to or since the birth of her child Her last period occurred during the latter part of October, 1885 During the month of November the catamenia remained absent, which she attributed to a cold, the idea of pregnancy not occurring to her, as she had none of the usual symptoms During the month of December, and particularly during the week preceding the holidays, she was on her feet constantly although not feeling well, having sensations of chilliness, followed by a feeling of heat and general depression On the Sunday before Christmas a slight and painless flow of blood commenced, believed by her to be the period, now four weeks overdue The flow continued several hours and then ceased On Christmas day, while seated at the dinner-table, she was suddenly attacked with a profuse hæmorrhage, the blood saturating the floor, and continuing until a degree of faintness was produced, in which condition I found her on my arrival a few minutes afterwards The hæmorrhage, which had been entirely without pain, ceased suddenly A careful examination confirmed my suspicion of pregnancy, although I was much surprised at the size of the uterus, corresponding to a four and one half months' pregnancy, the fundus rising nearly midway between the symphysis pubis and the umbilicus There being no further hæmorrhage, no pain and no dilatation of the os, an expectant plan of treatment was pursued by instructing the patient to keep in bed, enjoining absolute rest, and giving her a few doses of morphia On the following night another hæmorrhage occurred, but of not much consequence, and requiring no interference Two days later, on the morning of the 28th of December, another hæmorrhage took place, more copious than the last one, but still unaccompanied with pain An examination showed slight dilatation of the os, but not sufficient to permit the recognition of the contents of the uterus As the patient was beginning to show decided symptoms of anæmia, the vagina was tamponed and ergot administered to check the hæmorrhage and favor uterine contractions

Uterine pains soon commenced, accompanied by considerable hæmorrhage, the os dilated fully one inch, the presenting part giving the sensation to the finger of a blood clot This was soon expelled in detached portions, and on removal from the vagina was readily recognized as a hydatiform mole, having all the characteristic appearance of a grape bunch, composed of a mass of translucent vesicles, about the size of currants, containing a clear, limpid fluid After inserting two fingers into the uterus and emptying it as thoroughly as possible of all the diseased tissue, the hæmorrhage promptly stopped The entire mass removed equaled about the size of a large orange Some febrile reaction occurred, but for several days the temperature did not exceed 100½F° and the pulse 95, the treatment consisting of quinine and ergot, internally, and the use of uterine and vaginal injections of carbolized water

On the beginning of the fourth day the patient was suddenly seized with a severe chill, followed by the usual symptoms of septic poisoning, high temperature (104½°F), rapid and feeble pulse, superficial respiration, great tympanites, thirst, vomiting, and arrested lochia, with no pain or tenderness over the abdomen The outlook was anything but promising, but the prompt administration of large doses of quinine, combined with diaphoretics, turpentine stupes, warm fomentations, and the continued use of antiseptic injections was followed by the most gratifying results, and after four days of great anxiety the patient had recovered sufficiently to be declared out of danger At the present time, eighteen days since the expulsion of the mole, the patient is up and about the house, with a good appetite, and making preparations to leave in a week or two on a journey to the South

Dr C W Earle had seen two cases of this kind, and while he had been surprised a great many times in his practice, he was never more so than upon one of these occasions He had been in practice about two years, when he was called to attend a lady in confinement near his residence He placed himself at her bedside, found the *os uteri* well dilated, with the membranes intact and well down in the vagina, when all at once there came a gush of something, and a large quantity of these grape-like bodies made their appearance He immediately gave ergot and cleared out the uterine cavity, and took the first opportunity to repair to his study to seek an explanation of this, at that time, to him a strange phenomenon The case was eventually made the subject of a short article which appeared about that time in the *Chicago Medical Examiner*

The lady was anæmic, and made a slow but perfect recovery She has enjoyed good health since, but has never again become pregnant

Dr Henry T Byford had had an opportunity to see this specimen, and it was very much like a bunch of grapes in shape, although Barnes, he believes, claims there is no such resemblance But he bases his views upon the fact that the vesicles are developed from each other instead of from the common stem

In regard to the treatment, he thinks it would now be considered best to scoop out the uterus to prevent septicæmia, and so it would be, if that could be easily done From inquiry of Dr Doering, he understood the opening in the cervix was rather small, the body anteverted, and it would have been necessary to use an instrument in removing the mole He had seen severe inflammation, in the broad ligaments, result from curetting the uterus after abortions, with the dull curette Therefore, he thought it was a point of interest well illustrated in this case, that it is not in every instance the proper thing to do, especially when so much has been passed that there is pretty firm tonic contraction of the uterus

Dr H P Newman I understood Dr Doering to say he used ergot This might explain the fact of finding the cervix closed

Dr Doering I would like to ask Dr Earle whether he discovered any trace of the fœtus

Dr Earle I did not in my case, but there is a specimen in the museum of the College of Physicians and Surgeons in which the fœtus is one and one-half inches long

Dr Charles Caldwell I met with one case in my practice last fall October 10, I was called early in the morning, the messenger informing me his wife was having a miscarriage I found my patient flowing quite profusely She supposed herself five months pregnant, as she had not menstruated since May The last week in July, she flowed slightly for two days The 12th of August, the flow commenced again, and was so profuse that she went to bed and called a physician, who diagnosed her case threatened abortion, and treated her accordingly, keeping her in bed two weeks From that time until the hydatidiform mole was expelled the flow never stopped completely, for a single day, but she passed no pieces of the mole The os was soft and easily dilated I introduced two fingers into the uterine cavity and removed its entire contents The mass was too large to be removed intact, and the os was not sufficiently dilated As I removed each piece the uterus contracted well and firmly, diminishing the size of its cavity rapidly, so I was sure when it was empty

The lochial discharge kept up for three days She remained in bed one day, but the next morning prepared her husband's breakfast, and has attended to her household duties since There were no symptoms of septicæmia following The broken mass would have filled a two quart measure Some of the cysts were as large as a bean I gave Dr Jaggard a specimen to show to his class No fœtus could be found in the mass Small doses of ergot were given for a few days Menstruation was established in December, and the patient is now strong and healthy

The inaugural thesis of Dr F E Waxham, (Chicago Medical College, 1878), entitled

"INTUBATION OF THE LARYNX, WITH HISTORY OF CASES,"

was read by Dr Edward Warren Sawyer

Dr Waxham described Dr O'Dwyer's method of intubation of the larynx, narrated the histories of seventeen cases, in which the method had been employed, and drew the following conclusions

"Intubation of the larynx possesses many advantages over tracheotomy

"1 No opposition is met with on the part of parents and friends, quite a contrast to the difficulty with which we usually meet in obtaining the consent to tracheotomy

"2 It relieves the urgent dyspnœa as promptly and as effectually as tracheotomy, and if the child dies there is no regret that the operation was performed, and no discredit is attached to the physician

"3 There is less irritation from the laryngeal tube than from the tracheal canula As the tube is considerably smaller than the trachea, it does not press upon it firmly at any portion excepting at the chink of the glottis

"4 Expectoration occurs more readily than through the tracheal tube

"5 As the tube terminates in the throat, the air that enters the lungs is warm and moist from its course through the upper air passages, and there is less danger of pneumonia

"6 It is a bloodless operation

"7 It is more quickly performed and with less danger

"8 There is no open wound that may be the source of constitutional infection

"9 Convalescence is more rapid, as there is no ghastly wound to heal by slow granulations

"10 The patient does not require the unremitting care of the physician, as in tracheotomy

"11 I believe it to be a more successful method of treating croup, either diphtheritic or membranous, than tracheotomy

"The only objection to the operation of intubation is the difficulty of its performance"

Dr Christian Fenger said that this was a subject of exceeding interest, and deserves great attention Tracheotomy was one of the few operations that always made him nervous That this operation is attended with some danger there is no question There is danger from hæmorrhage during and after the operation, and there is some danger of shock, which, in cases where there is no membranous laryngitis, sometimes can be traced only to the operation. For instance, he years ago went to make an examination of an old man who had swallowed a little fish bone, that had got into the mucous membrane in the entrance to the larynx, during dinner. Œdema of the glottis necessitated tracheotomy, which was performed without an anæsthetic. There was no hæmorrhage, the dyspnœa was relieved, but the man died about twenty-fours afterwards from the shock and disturbance attributable only and alone to the operation. In other cases hæmorrhage, even under great care in the operation, cannot always be avoided. He has had two cases of such hæmorrhage where the patients have died, one in two hours and another in five hours subsequent to the operation, not on account of the amount of hæmorrhage, but on account of the disturbance in the lungs, caused by a moderate amount of aspirated blood. So, if it is possible to get around the tracheotomy in some other way, then he for one would embrace it with the greatest of pleasure. However, when he saw Dr. Waxham's intubation—which he looked forward to with great interest—he was afraid of the tubes slipping into the air passages, so that the operator could not get hold of them again. That is one thing, and another that came into his mind was the small calibre of the opening in the tubes. He had an opportunity to see a little child that he operated upon where the operation was easy, and relief was instant, and that is all he has seen as yet of the matter. Then, of course, he read the paper. There is one thing that he would be rather afraid of,—but that is a theoretical objection only,—that is, to leave the child without taking the tube out. It seems from the cases reported, however, that in those cases there has never been much trouble of this kind, and theory of any kind is of no value whatever compared with facts.

He believes that this matter is very worthy of careful consideration, but, on the other hand, not until a larger number of cases have been tried will we be able to form any definite opinion about it. But we know enough from the cases recorded here to be desirous of having this new matter tried.

Dr. F. E. Waxham was then elected Fellow of the Society.

FOREIGN CORRESPONDENCE

LETTER FROM NAPLES

(FROM AN OCCASIONAL CORRESPONDENT.)

The Hospitals and Clinics of Naples—The Medical Students—The Cost of Medical Education—Operations in the Hospitals—Systems of Medicine—Development of Blood Crystals—The Cholera Bacillus—Neapolitan Medical Men.

Medically and surgically Naples is in many respects very interesting to a physician. She has hospital capacity for from 3500 to 4000 patients divided into 14 different hospitals, besides the greatest abundance and variety of clinics supplied from a population of city and suburban villas of near 800,000 souls. Her hospitals are not to be commended for beauty of architecture nor for convenience and well ordered appointments internally, but for room I have seen nothing in America or Europe equal to them. There are medical students here from all parts of the world, many of them being able to speak several languages. This is really by position, one of the best centres in the world, and should command a very high position in point of education as well as commerce. There are over 300 professors in the university, and the medical faculty represents the very best of professional talent and experience. I am informed that students pay 40 francs ($8.00) each year to the government for tuition, and, at the end of 6 years, 20 francs additional for tickets of examination and graduation—the professors being employed at stated salaries by the government. A group of students with a professor lecturing to them, all with their hats on, seated on benches arranged in a square in the wards among the patients, is to be seen almost every morning. Separate lecture rooms, however, are furnished for teaching the scientific branches.

With few exceptions, operations are performed in the wards, and on a bed (instead of a table), drawn out in the middle of the room. This is, of course, very awkward and embarrassing to the patient, who sees and hears everything about the preparation for the operation, and in a Listerian consideration of antisepsis is not commendable. Although antiseptic treatment is recognized and seems to be appreciated, in application it is not at all understood. To give an instance. Dr. Dattelo, one of the finest operators I ever saw handle a knife, refused to operate for osteo sarcoma on a little boy unless a separate room was furnished. This was granted after several days, and I was very kindly invited to see the operation. In the middle of a room 12x18 is a rickety single, low bed (no operating table) with linen coarse and soiled, holding a little 8 year old boy with an ugly tumor on the left temple extending forwards and into the external canthus of the left eye. Terrified at the approach of 10 or 12 students, professors, and nurses, he began to cry—opening out instruments and putting on white aprons only added to the child's fears and agony. Ether was finally brought and administered by force out of a kind of reticule or bag, the surgeon being compelled to perform the operation in an uncomfortably stooping position, the bed and clothing receiving the blood not taken up by sponges. The ceiling of the room was badly soiled by leakage and plenty of dirt lay, half swept in the corners, and on the window sill. I thought it a pity for the patient, and that the science, and the results of a skilful operation should thus be jeopardized. Two days after, however, the patient was doing well with no evil signs about the wound.

From what I could learn in practice a disposition to adhere to systems prevails to a much greater extent than obtains in America. It is not only the Neapolitan system, the Milan plan or the School of Pavia, but it is a system of a celebrity. For example, injections hypodermically of corrosive sublimate, for so many days, followed by unction with Neapolitan mercurial salve with sulphate of quinine internally, seems to be the beau ideal Neapolitan system of treating syphilis under all circumstances Titles are not so important anywhere as in England The steward even of the hospital would seem indignant if you said doctor or surgeon Lester, instead of saying "Sir Joseph"—indeed, American independence of thought, action, and manners even in medicine can find no prototype on this side of the Atlantic, but less attention in Naples than anywhere else seems to be given to titles Doctor or professor is enough here for all practical purposes Dr Fienga is *the* microscopist, author of a work on physiology, and several monographs on various subjects He has a very extensive cabinet of microscopical specimens, physiological and pathological, prepared by himself To the German (Teichman) method of developing the crystal "emina" of blood by adding salt and acetic acid and heat to the boiling point, he adds Canada balsam and turpentine, and thus makes the test more delicate, bringing out the characteristic crystal from a much smaller stain of blood The boiling point is very simply obtained by holding the plate over the blaze of a spirit lamp until the drop of prepared fluid between the glass plates becomes white, like steam The doctor very kindly showed me the process, using material from a stain said to be 14 years old He says one can study in two hours all that is to be learned microscopically of the cholera germs, and he showed me various specimens of the microbe in its different states of development taken from various parts of the body, and from the alvine discharges The doctor is an enthusiastic investigator and a hard worker, as is also Dr Scibbelli—the latter having for his specialty, obstetrics and the morbid anatomy of the pelvis He also has one of the most extensive private museums of specimens I have seen

Dr Novo is professor of gynæcology, and a noted author He, Scibbelli, and Fienga presented me with copies of their writings, and I leave Naples with the kindest feelings towards the doctors I shall ever feel under obligations to Dr Conic for his almost undivided attention He is a worthy young man of much promise—the more so, because he soon moves to the Western States of America, where he will have room to spread himself To straighten the leg of an asteoplastic knee-joint in Edinburgh, they divided the patella and removed a v-shaped section of the joint, and reunited the patella by wire Dr Lester (Sir Joseph) of London, removed entire the patella, and in Naples they use Rizzoli's lever screw instrument which tears assunder the plastic bones For the removal of stone, they also use here Rizzoli's lithotrotome, which, they claim, reduces the operation to a child's play of 42 seconds' time In the pathological section of the University Museum here, may be seen real one eyed Cyclopian monsters, and in the National Museum are surgical instruments taken from the ruins of Pompeii, speculums, catheters, forceps, scalpels, etc , just like ours of this age

A B T

LETTER FROM VIENNA

(FROM OUR OWN CORRESPONDENT)

Mortality from Puerperal Fever Before and Since Antisepsis—Parametritis and Perimetritis—The International Medical Congress

In a recent letter I reviewed the practice of the Vienna school in relation to puerperal fever I wish now to give some statistics of mortality before and after the introduction of antiseptic precautions

Paris—1829—Maternité—Confinements, 2788 Mortality 252
1831 ‘ 2907 ‘ 254
Vienna—1823—During the epidemic of puerperal fever in February March and April of this year there were 698 confinements of which 133 died
1842—There were 3287 confinements with 518 deaths
1846—4010 confinements with 459 deaths

In May, 1847, Semmelweise published the results of his investigations, and urged upon Prof Klein, in whose clinic he acted as first assistant, the necessity of washing the hands in chlorine water before examining lying-in women Prof Klein laughed at his assistant, but gave the order Semmelweise's paper was badly received, and he himself was regarded as a medical crank See the results

1846	Confinements	3352	Deaths	459
1847	–	3275		176
1848		3556	‘	45
1849		3858	‘	103

This was the year in which Semmelweise was sent away, and his precautions were not observed In 1854, 4,393 confinements, 40 deaths During this year, these details were enforced The statistics of Prag are still more remarkable From 1865 to 1874 the old building was used, which was entirely unfit for purposes of hygienic detail, and the mortality was 6 67 per cent , as follows

Year	Births	Deaths	Per cent.
1865	2576	239	9 28
1866	2673	125	4 68
1867	2368	115	4 98
1868	2712	245	9 04
1869	2505	291	11 62
1870	2249	96	4 27
1871	2329	72	3 08
1872	2210	115	7 01
1873	2189	168	7 67
1874	2346	102	4 35

At this time the new building was completed, and the mortality fell to 0 65 per cent , as follows

Year	Births	Deaths	Per cent
1875	2180	60	2 75
1876	2627	30	1 14
1877	2704	34	1 26
1878	2776	45	1 68
1879	3010	11	0 36
1880	2813	13	0 46
1881	2927	7	0 24
1882	2963	7	0 24
1883	2900	7	0 24
1884	2886	7	0 24

These figures must convince any thinking man not only of the value of absolute cleanliness in obstetrical practice, but of the importance and necessity of antisepsis as I have previously described it Not the excessive practice of some eminent practitioners, that would enforce uterine and vaginal irrigation of an antiseptic fluid, even in cases of normal labor—but the elaborate cleansing of arms, hands and nails, before an examination is made, attention to attire, so that the obstetrician should not wear in the lying-in room the same coat which has followed him in his many daily calls The practice of this school speaks volumes, and meets, for so it seems to me, every indication of exactness without being meddlesome When one compares the low rate of mortality with the indiscriminate examinations made by students and visitors, and bears in mind the unsuitable condition of the building in which both Professors Braun and Spaeth have their material, the results are simply marvellous It proves that antiseptic obstetrics, under the most unfavorable conditions, is infinitely preferable to any other form of obstetrics, even coupled though it may be with every hygienic detail of excellence in the building itself

Parametritis and Perimetritis —I long held with Emmet that the distinction between these two inflammatory conditions was really without any difference, and that clinically they could not be differentiated For sixteen months I have labored faithfully in this direction, both in Berlin and in Vienna, and have availed myself of enormous material and of every other possible means to enter intelligently into the nice discrimination made by German gynecologists To this end I made a close study of the connective tissue of the female pelvis, without a thorough knowledge of which no gynecologist can ever hope for a logical conception of para- or perimetric inflammation To those wishing to make similar investigations I cordially commend Freund's "Gynakologische Klinik," Strassburg, 1885, as being the most exhaustive and thorough work that I know of I am gradually being convinced, by actual observation and constant study, that Emmet's statement is too absolute, and that in many cases the two diseases are entirely separable This becomes more plain to me as I advance more logically in an anatomical survey of the para- and perimetric tissues I do not disguise the fact that even here in Germany, in the polyclinics, the mistake is often made of confounding the two, and that the nice differential points insisted upon by Freund are often lost sight of, and I also realize that in some cases it is really impossible to separate the two, but I do believe, and that thoroughly, that there are other and many cases in which it is not difficult to make the diagnosis At least seventy five per cent or more of all the women that I have examined in Berlin and Vienna, have suffered from acute or chronic inflammations of this sort, and without any exaggeration I think I may safely say that I have seen in the neighborhood of a thousand such cases This will savor less of Munchausen to those who have studied in these schools, and who remember that in Vienna alone, in two touch courses per day, one may examine from twenty-five to forty-five women I have learned to count largely upon the salient characteristics of subjective as well as of objective symptoms In the large majority of instances —nay, more, according to the anatomy of the parts, it *must* be so that in every instance where the symptoms are relegated to a point just behind the cervix, where the connective tissue is situate around the *infra-vaginal* portion, the disease is a "posterior parametritis," but where the tenderness and objective symptoms are higher up in the fornix, where the peritoneum dips down, we have to do with a "perimetritis" In the former instances only the infra or middle cervix will be fixed—partially or wholly—in the latter, the fundus itself will suffer Just so we may have a para cystitis, or a para-kolpitis, or a para proktitis In the connective tissue itself the points of exudation may be limited, they may not run into each other, they may not reach the peritoneum, and they may be absorbed rapidly Perimetritic exudations are situate higher up than those of the parometrium, and are attended with an entirely different symptomatology The *fornix vaginæ* is not flattened out in perimetritis, as it is in parametritis Perimetritic exudates are generally situated high up in the posterior cul de sac, as one would expect to be the case The *collum uteri* is fixed in parametritis, and in endeavoring to move it the patient will complain of pain, which is not the case in perimetritis In short, there are many points of difference between the two, which have been made equally plain to some other gentlemen who have been associated with me in gynecological studies abroad One must see and study both forms, at every stage of development, and must examine by rectum and vagina Examine especially the base of the broad ligaments and the cul de sac of Douglas, also the left lateral fornix (which is a favorite habitat of perimetritis) It took me many months before I learned exactly where to place the inflammation, but the knowledge came with experience, and from a thorough comprehension of just what is meant by pelvic connective tissue

I hear of many medical men in Berlin and Vienna who intend coming to the Congress A R B

DOMESTIC CORRESPONDENCE

INTRIGUE IN THE ASSOCIATION!

TO THE EDITOR OF THE JOURNAL

Dear Sir —The following extract is taken from the *Nashville Journal of Medicine and Surgery*, of February, 1886, and reprinted in the *Medical News*, of February 27

"Of late years this Association has appeared to degenerate into a body merely medico-political, and it is time something should be done to elevate it to a proper standard and make it what the British Medical Association is to the profession in England, representative and national Political intrigue and trickery have too long held sway in this Association and it is time the profession should see to it that it be no longer thus degraded, and be brought back to the place it occupied in its palmiest days From year to year the meetings have become less and less important in a scientific point of view, and it is time every true physician should individually strive to change its downward course If some change is not soon effected, the Association will cease to exist and the profession will turn its attention to the separate special Associations which are all now in a flourishing condition We hope, therefore, that all who can will make an effort to attend the coming meeting "

If the editor who made this statement had looked over the list of names that have figured largely in the meetings of the American Medical Association within the past few years, of whom I need mention only those of Drs Marion Sims and Samuel D Gross, he certainly could not have had the effrontery to parade such nonsense before an intelligent profession The founders of the American Medical Association have conferred a lasting benefit upon the American Medical profession, but during the last few months its enemies have made every effort to destroy its usefulness Doubtless an effort will be made at the coming meeting in May to degenerate the Association into a medico political meeting by the very men who have so roundly abused it, but it is to be hoped that the better element which has hitherto guided its counsels will succeed in preventing the disaffected element of the profession from impairing the usefulness of the Association Its influence for good has been felt from the St Lawrence River to the Gulf of Mexico, from the Atlantic to the Pacific Ocean, and the man whose spleen finds vent in the above quotation is, in the opinion of the writer, an enemy to the medical profession I am, etc ,

J F JENKINS, M D

Tecumseh, Mich , March 1, 1886

A NAVAL INEBRIATE ASYLUM

TO THE EDITOR OF THE JOURNAL

Dear Sir —I am much struck by Dr Frederick Horner's paper, "A Plea in Behalf of a Hospital for Naval Inebriates," in THE JOURNAL for March 6 It is especially painful to infer that the sober men are inferior to the bulk of their comrades, for we are told that "apart from inebriety, these are in all respects the best and most intelligent men in the service" In every rural community there is a drunken medical practitioner who is "the best doctor in town, if you can find him sober!"

We may grant that inebriety *is* a disease, but it is one the causation of which is so well known that its victims are as inexcusable as those of syphilis Let the cadet and midshipman know that prompt dismissal will follow the first detection of the drinking habit, and there will be no occasion either to cashier or send to an inebriate asylum a valuable and experienced officer at a later date Let the Navy cease to be a school of inebriety, and spare the nation the disgrace of a Naval Inebriate Asylum Teetotally yours,

IRVING W SMITH

Charles City, Iowa, March 10, 1886

NECROLOGY

AUSTIN FLINT, SR , M D , LL D

At a special meeting of the Executive Committee of the New York County Medical Association, the following was unanimously adopted

Whereas, It has pleased God to remove from our Association our beloved and highly honored friend, Professor Austin Flint, M D , LL D , one of our Founders, and an ever willing co worker We desire to record the great appreciation of our loss

Professor Flint, from early manhood, has ever been an indefatigable laborer in the field of Medical Science, and for half a century has been one of the most accomplished teachers and writers in the profession

His varied experience, extending over different portions of our country, enabled him on his settling in New York City, at once to take the foremost place in the profession As a consultant, he was without a peer, his calm judgment, urbane manners, and strict conscientiousness made his presence ever welcome to his brethren As a gentleman, he will be held in grateful remembrance by all with whom he came in contact, his charities were proverbial

His death will be the cause of universal sorrow, especially occurring at a time when his deliberate counsels are most needed We can never forget that genial countenance, those cheerful words, and that buoyant disposition, which, amid the greatest of sorrows, always pointed out the ray of light affording hope.

Therefore, in testimony of your respect for the deceased, it is earnestly hoped that you will attend the funeral services at Christ Church, corner of 35th street and Fifth avenue, on Tuesday, March 16, 1886, at 2 o'clock P M

The members of the Association will assemble in the Sunday School room, entrance on 35th street, at 1 45 P M

CHARLES A LEALE, M D ,
President

GLOVER C ARNOLD, M D , *Sec'y*

A review of the life and work of Dr Flint will appear in the next issue of THE JOURNAL

ASSOCIATION ITEMS.

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo , on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by* *special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By Laws*, Article 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology —Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky , *Secretary*

Obstetrics and Diseases of Women and Children —Dr S C Gordon, Portland, Me , *Chairman*, Dr J F Y Paine, Galveston, Texas, *Secretary*

Surgery and Anatomy —Dr Nicholas Senn, Milwaukee, Wis , *Chairman*, Dr H H Mudd, St Louis, Mo , *Secretary*

State Medicine —Dr John H Rauch, Springfield, Ill , *Chairman*, Dr F E Daniel, Austin, Texas, *Secretary*

Ophthalmology, Otology, Laryngology —Dr Eugene Smith, Detroit, Mich , *Chairman*, Dr J F Fulton, St Paul, Minn , *Secretary*

Diseases of Children —Dr W D Haggard, Nashville, Tenn , *Chairman*, Dr W B Lawrence, Batesville, Ark , *Secretary*

Oral and Dental Surgery —Dr John S Marshall, Chicago, Ill , *Chairman*, Dr A E Baldwin, Chicago, Ill , *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich —Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence

WM B ATKINSON, M D ,
Permanent Secretary

1400 Pine St , S W cor Broad, Philadelphia

MISCELLANEOUS

DR GASPER GRISWOLD, one of the most promising young physicians of New York, died on March 4, after a short illness He was a member of the editorial staff of the *New York Medical Journal*

PHOTOGRAPHIC DIAGNOSIS —Henry de Parville, in "Le Gagne-Petit," tells of a case in which the sensitive plate for a photograph showed some very peculiar dark specks When the sitting was made the subject had peculiar sensations of the skin, but nothing was visible Two days after the sensitive plate announced that something was wrong the woman was taken sick with an eruptive fever

UNCONSTITUTIONAL BOARDS OF HEALTH IN NEW JERSEY —The New Jersey Supreme Court has declared a law to be unconstitutional under which certain boards of health were organized and operated The boards so affected are abolished, among them the Board of Health of Camden, which has now no sanitary protection except that afforded by the sanitary committee of the common council

A MILK STANDARD —The Court of Appeals of New York has just decided that the legislature has the power, in an act forbidding the sale of impure or adulterated milk, to fix a standard by which it shall be judged, not only as a rule of evidence but as an explanation of the meaning of the words used in the Statute

POISONOUS WALL-PAPERS IN MASSACHUSETTS —A second hearing in regard to legislation to prevent the sale of wall papers containing poisonous ingredients was recently held before the Committee on Public Health of Massachusetts Many leading chemists appeared in support of the measure

NOTE BOOK FOR OVARIAN AND ABDOMINAL TUMORS —We have received from the publishers, Cupples, Upham & Co , of Boston, a convenient note book for cases of Ovarian and other Abdominal tumors, arranged by Dr John Homans

NEW YORK STATE MEDICAL ASSOCIATION, FIFTH DISTRICT BRANCH —The third special meeting of the Fifth District Branch will be held in the Common Council Chamber, Yonkers, at 2 P M on Tuesday, March 23, 1866 The following papers are promised

"The Physician and the Pharmacist—their Relative Duties," by J P Garrish, M D

"A Case of Meningeal Extravasation with Curious Localization of Nerve Symptoms," by A L Carroll, M D

"Sacculation and Perforation of the Bladder as Consequences of Chronic Retention of Urine," by J W S Gouley, M D

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING MARCH 13 1886

Woods, George W , Surgeon, ordered to Navy Yard, Mare Island, to relieve Surgeon W K Scofield April 1

Scofield W K , Surgeon, detached from Navy Yard, Mare Island, and wait orders

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED MARCH 13 1886

Benson, J A , Passed Asst Surgeon, resignation accepted, to take effect April 6, 1886, and leave of absence granted until that time March 10, 1886

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, MARCH 27, 1886 No 13

ORIGINAL ARTICLES

THE MECHANISM OF INDIRECT FRACTURES OF THE SKULL[1]

BY CHARLES W DULLES, M D,
SURGEON TO THE OUTPATIENT DEPARTMENT OF THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA AND OF THE PRESBYTERIAN HOSPITAL IN PHILADELPHIA

Hippocrates gives the earliest definition of the fractures we are about to study The bone is broken in another part of the head than that in which the man received the injury, and the bone was stripped of the flesh This definition remained unimproved until more than two thousand years later, when in 1873, Félizet suggested the division of fractures of the cranium into "immediate and mediate," if, indeed, this suggestion be an improvement Hippocrates despaired of the cure of fractures remote from the seat of the wound, and seems to have had no more definite idea about them than that they might occur The next author, Celsus, says It sometimes happens, also, that the blow has fallen upon one point, and the bone is cleft in another He furthermore recommends cutting down upon any point where there is softening and swelling, in case no fissure is found at the point struck, and bad symptoms arise Here is a decided advance upon the teaching of Hippocrates, another being the observation of Celsus that the vessels of the brain might be ruptured without fracture of the cranium, anticipating a much later explanation of the term "*contrecoup*"

The Royal Academy of Surgery of Paris proposed in 1760, and again in 1765, as the subject for a prize, the following proposition "To establish the theory of counterstroke in lesions of the head, and the practical conclusions which may be drawn from it" On the first of these occasions the prize was not awarded, on the second, it was awarded to Grima, who sent in for the second time the same essay which he had sent in for the competition, and which had been thought the best at that time The same question was proposed for the prize of 1768, when prizes were awarded to Saucerotte and Sabouraut, for which Chopart also presented an essay, which was accepted and published by the Academy Chopart not only recognized the elasticity of the skull, but exaggerated it and, as a diagram in his essay shows, believed that a blow produced alternating and reciprocal shortening and lengthening of the axes, in a manner which some authors describe as undulatory Nor would the history of this epoch be complete without mention of a valuable memoir upon counterstroke in other parts of the head, written by David, though published under the name of his pupil, Bazille—to which a double prize was awarded in 1771

In 1844, Aran published an exceedingly valuable paper on fractures of the base of the skull, in which he formulated a theory which has been known by his name ever since This theory was, that fractures of the base are always connected with fractures of the vault, from which they radiate, following a line within the zone in which the former occurred, and taking a course which corresponds with shortest route to the base His conclusions are formulated as follows

1 He never saw a fracture of the base, caused by a blow without a direct fracture
2 Fractures of the vault joined the base by "irradiation," and crossed any sutures in their way
3 They followed the shortest route to the base (the curve of shortest radius)
4 They were ordinarily limited to certain regions (corresponding to the several great fossæ of the cranium), and followed a certain direction
5 Fractures of the vault sometimes coincide with *independent* fractures of the base, but only when there is considerable comminution (*ebranlement*) and very multiplied fractures

In 1847, Guthrie published a monograph on injuries of the head, in which he gives an excellent *resume* of the history of various sorts of fractures of the cranium Among them he speaks of counterstroke, the occurrence of which from temporal to temporal, or from parietal to parietal, he doubts, but says that fracture of the base from blows on the vertex or occiput are among the commonest accidents of surgery

In 1853 was published, in *Guy's Hospital Reports*, a first instalment of Mr Hilton's sagacious lectures on the cranium, which was followed, in 1855, by their publication entire in a separate volume, by Dr Pavy, after their revision by Mr Hilton himself In these lectures Mr Hilton explains fractures of the skull upon the "vibration theory," and speaks of the posterior clinoid processes and the extremities of the petrous bone as points to which vibrations are conducted, and where they are transmitted to the cerebro spinal fluid, thus being "interrupted or lost before reaching the cerebral tissues," etc The fallacy of this conclusion I shall have to consider hereafter

---

[1] Abstract of a paper read before the College of Physicians of Philadelphia on February 3 1886

In 1854 the keynote to a new theory of indirect fractures of the skull—which had, however, as we have seen, been foreshadowed much earlier by certain observers—was struck in Germany by experiments made by Bruns, of Tubingen, to determine the elasticity of the cranium.

In 1864, Chauvel published a thesis on fractures of the cranium, founded upon a careful study of its anatomy, in which he laid great stress upon the elasticity of the skull, and described the "vibrations" produced by a blow, as the repeated and alternating shortening of the prime axis and lengthening of the transverse axis. He called attention to the fact that the petrous bone, although the hardest in the cranium, is the one most frequently fractured. He described three kinds of fracture: 1, direct; 2, contra direct; 3, indirect. The first kind is simple enough. The second occurs opposite to the point struck, and he offered no explanation of them, except the comparison of those caused by the spinal column to the manner in which the handle is driven into the head of a hammer by striking the remote end of the handle against some resisting body. The third form of fracture he defined as that occurring between the point struck and that directly opposite. This he found in eleven out of sixty fractures.

In 1872, Schwartz analysed 115 cases, in most of which the history was very incomplete, and he found fracture of the base alone, without fissure of the convexity, only seven times. He found about thirty-nine per cent of the fractures limited to the zones described by Aran and Hewett, while in over sixty per cent this regularity was wanting. This is one of the most important features of his investigations. Another is that the study of fractures he had analyzed showed that the petrous bone was fractured in 66 out of 115 cases, and that force applied to the side of the head caused fractures somewhat parallel to the axis of the bone, while force applied to the occiput, or forehead, or vertex, caused fractures transverse to the axis. This was an important contribution to the accumulating material for a new consideration of the mechanism of indirect fractures of the skull, as we shall see hereafter.

In 1873, Felizet published an elaborate illustrated monograph[1] on the subject of fractures of the cranium. He regards this as a solid case, of a spheroidal shape, but claims that its internal configuration renders inaccurate a comparison of it to any geometrical figure whatever. By experiment he demonstrated that the dura mater makes the skull where it is attached more resistant to fractures caused by flattening its curve. Experimenting with a billiard ball let fall from a height, he found that its equator was increased, that this increase was greater in a direction at right angles to its fibres than in a direction parallel to them. The result was an ellipsoidal equator, and when a fracture occurred, this crossed the long diameter at right angles. He unwittingly paraphrases the theory to which I have several times alluded, and which I shall soon consider, in saying, "We know that a fracture results from depression of the curved surface situated between two resisting pieces, and we know, also, that every effort tending to depress this curve divides into two forces, the one a driving force (*force de tassement*), which acts on the axis, or near to it, of the supporting walls; the other, a disruptive force (*force de glissement*), which acts transversely to them, and tends to separate the two extremities of these pieces." He compares the separation of sutures, the result of blows, to that which is effected in anatomical preparations by filling the skull with dry peas and then soaking them, so that by swelling they tear the skull apart. He declares that there is a perfect analogy between this and what he calls the "*grand fracas*" (grand smash), in which he says "the bones, compressed over a large surface, rock (*basculent*), and this rocking movement sets up violently a dragging force perpendicular to the plane of the surface of union of the bones of the cranium." As we shall see hereafter, this is the same as saying that a force which depresses an elastic curved figure, will enlarge its diameter, and be converted into a disruptive force acting at right angles (perpendicular) to the meridian. Herein Félizet comes near to the theory which the Germans call the "Berstungs" (bursting) theory, although he does not quite reach it, and may perhaps, even now, not see his statements to be so strong a confirmation of it as they appear to me to be.

The term "*contrecoup*" Félizet rejects, and would adopt that of M. Beau, of Brest, who called indirect fractures "mediate." Félizet compares the mechanism of these fractures to those produced by a blow upon a wedge or a chisel. The part broken, he holds, is directly struck by another part, which in its turn, received a blow and transmitted it. Yet he admits that, very rarely, these fractures by *contrecoup* do occur. He divides fractures of the cranium into direct, indirect, and mixed. Indirect fractures include those which are independent. In respect to the application of the violence which causes them, fractures may be divided into immediate and mediate. His conclusions may be briefly stated as follows: all fractures not immediately limited to the point of impact follow certain definite routes, to which they are restricted by the added strength of certain parts of the skull, which depends upon the presence of certain "*murs boutants*" (buttresses): the petrous bones, the orbito sphenoid prominences, the occipital protuberance, and the naso frontal protuberance. The basilar process and the antero lateral parts of the occipital bone remain intact amid all fissures and constitute a "centre of resistance." The vibration theory, he says, is disproved by experiments, the fundamental phenomenon is a violent flattening of part of the vault, and a separation of the resisting portions (*pieces de resistance*) which support it. When the violence is perpendicular to the surface of the cranium, fractures radiate directly to the base. In this, it will be seen, Felizet agrees with Aran. Finally, he admits that these are fractures, called by "*contrecoup*," the mechanism of which escapes us completely.

The opinions of Félizet are founded upon a careful analysis of a number of pathological specimens and upon a number of experiments upon fresh skulls

---

[1] Félizet, G. Recherches anatomiques et expérimentales sur les Fractures du Crâne. 8vo. Pp. 167. Paris, 1873.

The value of his work can be appreciated only after a thorough study of it The result of it was to bring him to a conclusion which may be succinctly stated as that indirect fractures are due to a disruption by splitting There can be no doubt that the course of a fracture will be determined to a considerable extent by the reinforcements which the skull has, in certain places, from its buttresses (*murs boutants*), but, as we shall see hereafter, these very buttresses are often broken both transversely and longitudinally, and Félizet's centre of resistance is by no means a centre of immunity, but an exceeding frequent seat of fracture

A few years later Baum[1] opposed the vibration theory, and made some experiments by strewing sand on a skull and applying a vibrating tuning fork to it From these experiments he concluded that vibrations were restricted by surrounding less elastic parts, like the vibrations of a drum head The petrous bone, however, he concluded, owing to its anatomical structure and relations, vibrates like a rod held by one end in a vise He refers to Weber's wave theory, and concludes that blows upon the skull do not furnish the conditions of repeated impulses which produce a high vibratory action By compression of a few skulls in a suitable frame he got results which correspond to those of later German experimenters who adopted the "bursting" theory

In 1878, P Bruns attributed indirect fractures to the elasticity of the skull, as described by von Bruns in 1854, and explained the frequent occurrence of these fractures in the base of the skull by the fact that this is the weakest and most fragile part of it In the same year, Perrin made some very instructive experiments, in which he attempted to imitate the usual conditions of the skull by protecting it with an elastic cushion of cotton wadding or of caoutchouc and then throwing it upon a stone pavement, or by putting his cushion on the pavement itself He always got direct fractures by blows, and by precipitating the skull he usually got indirect fractures He showed typical specimens to the Societe de Chirurgie, in all of which the fractures were indirect and meridional, and in some interesting cases the vitreous alone was involved in certain places He found that blows on the vertex or occiput usually cause fractures by contrecoup (which he defines as fractures occurring at a place other than that struck), direct fractures being rare exceptions, while blows on the forehead, the parietals, or the temporal bones, rarely cause any but direct fractures

In 1880, Bergmann published another valuable contribution to this subject He compared the elastic conditions of the skull to those of the thorax, which, when compressed or struck in one part, breaks in another He also compares the mechanism of fractures of the skull to the bursting of the eyeball under pressure, referring to Arlt's demonstration, that when compressed the eyeball bursts in the equator Fractures from severe blows, he believes follow this law, those dependent upon moderate force follow the law laid down by Félizet He calls attention to the importance of duly estimating the variations in amount, direction and velocity of the force applied to the skull, and the support afforded by strengthening bones of the skull and face He cites Baum (whom I have cited) as refuting the vibration theory, and seems to have the idea that indirect fractures of the skull are to be attributed to a disruptive force, and not to a propagation of vibrations

In 1880, Messerer conducted a series of experiments which demonstrated more accurately than had ever been done before the elasticity of the cranium, and which made clear the fact that when the skull is compressed in one axis, the circumference at right angles to it is enlarged

In 1881 Nicolai Hermann published an inaugural dissertation on fractures of the base of the skull, in which, besides an analysis of seventy five cases gathered from various sources, he gives an account of seventeen experiments, in which he compressed the skull in longitudinal, transverse, and diagonal directions, until it broke His experiments always resulted in a fracture parallel to the direction of the compressing force He believes that fracture always begins at one of the points compressed and travels away from it By analyzing the cases he had collected he concluded that they supported his deductions from experiments It seems to me that some of his figures show plainly that the fissures must have begun at the middle and travelled both ways In the same year Julius Schranz published an account of thirty four experiments upon skulls, some (thirteen) from which the vault had been removed, but the most of them entire, in which he endeavored to imitate the conditions in which fractures are caused by different sorts of violence The experiments were interesting and instructive The great majority of the fractures he produced were splitting fractures, and *not* immediately connected with the point to which the violence was applied In a considerable number isolated pieces of the vitreous table were split off, or the dorsum ephippii These (and other indirect fractures), he says, can only be explained by the vibration theory A curious result of his experiments was that the brain was injured only once, and the dura mater separated from the bone only three times[1]

But it remained for Von Wahl, in 1883, to utilize the material which had been recently gathering, and to formulate unequivocally the theory that fractures of the skull may be divided into 1, crushing fractures, in which the line of fracture runs at right angles to the axis of the force applied, and 2, bursting fractures, in which the lines of fractures are parallel to the axis of the force which gives rise to them, and which begin, in the words of Messerer, at some point in a line which, like the equator, in relation to the poles of the earth, circumscribes the hollow figure in a plane equally distant from both points of compression He claims that, in compression of the skull—which may be gradual, as in a vise, or sudden, as when effected by a fall or blow—its elasticity, *in toto*, comes into play, and while its diameter which is parallel to the force applied is shortened, its diameters which lie at right angles to this are lengthened. The result is, that indirect fractures run in lines which we may describe as meridional. His conclusions rest not only on theoretical considerations and a review of the testimony and opinions of others, but also upon his own clinical experience, and a series of ingenious experiments, which are fully described and beautifully illustrated in his monograph, a careful study of which may, without injustice, be said to be indispensable to one who would form a direct opinion upon the subject of which it treats.

---

[1] Baum W Beiträge zur Lehre von den indirecten Schädelfracturen Langenbeck s Archiv f klin chir Bd xix pp 381–399 1876

In 1884, Dr. Nancrede, of this city, published an elaborate and valuable paper on "Injuries of the Head,"[1] in which he adopts the vibration theory, and supports his opinions with some interesting anatomical and physical considerations. He regards the base as a stronger part of the cranium than the vault, speaks of the brain as lying on a water-bed, and describes vibrations of the bones as travelling by the nearest "anatomical" route to the base, there to be discharged, like electricity, at certain points—the ends of the petrous bones and the clinoid processes—into tissues which are non conductors of vibration. He also calls attention to the important influence which the position of the head has upon the direction in which a force applied to the condyles will be conducted. In a very interesting case, which he cites from his own experience, there was a separation of the masto occipital suture, which he says was forced apart "as if from within."

In 1884, Messerer published a second and most admirable paper on fractures of the cranium in which he gives a description and analysis of eighty two experiments on fresh skulls, sometimes on entire cadavers. His experiments included accurately regulated blows upon skulls, detached or resting on the spinal column, and falls of the skull upon a hard base. These experiments completely refute the laws of Aran as well as those of Félizet, and seem to show conclusively that indirect fractures of the skull are dependent upon separation of the meridians caused by the depression produced at the point of contact by a blow.

Finally, our sketch of the history of this subject is brought down to the present year by a reference to the paper of Greder, published in the early part of 1885.[2] The experiments of Greder were made upon skulls connected with the trunk and still covered with their integuments and containing the brain, by blows with a weight of 6400–7650 grammes (about 12–15 pounds). After a large number of these experiments, some of which were most ingeniously varied, Greder comes to the conclusion that solutions of continuity of the base of the skull are to be regarded as the result of bursting, that the direction of fissures is parallel to that of the force causing them, that the extension of a fissure is dependent upon so many intercurrent conditions peculiar to each skull, that it can at most be only suspected from the intensity of violence. As to the point at which the burst begins, he holds that it is not always in the equatorial line, nor always at the point of impact, but at that point where resistance to the disruptive force is least. This will happen, he thinks, in the majority of cases, in the equator or in its neighborhood.

THE ELASTIC PROPERTIES OF THE SKULL

In 1854, von Bruns demonstrated the elastic properties of the skull by a series of experiments which only required multiplication and variation to confirm what an important part the elasticity of the skull plays in the production of indirect fractures. Since then, almost innumerable experiments and studies of specimens of fractures of the skull have cooperated to establish the conviction that, with certain exceptions, the mechanism of indirect fractures of the skull may reasonably be explained according to what the Germans call the "bursting theory," *i. e.*, to the conversion of a direct depressing force into an indirect disruptive force, produced by a shortening of the axis parallel to the direction of the force and a complementary lengthening of the axis at right angles to the former.

The experiments of Messerer can be analyzed so as to throw a great deal of light upon the physical properties of the skull, revealing the parts in which it is strongest, and those in which it is weakest. But, in order to understand their significance, we must have a clear idea of the mechanism by which, in a hollow case, the shape of which has a general resemblance to that of a spheroid or ellipsoid, a compressing force is converted into a disruptive force. It will be readily seen that when an elastic spheroid is compressed in any diameter, all the diameters lying at right angles to this, that is to say, in planes parallel to that of the equator, must be elongated. The experiment of pressing on the convex side of a bow, the ends of which rest on the ground, will illustrate what takes place in every chord of every arc that is depressed. It is equally clear that the elongation of the diameters lying in any plane will elongate the circumference of this plane, because a circumference of longer radius is longer than a circumference of shorter radius. As a result of this elongation of the circumferences parallel to the equator in any spheroid or ellipsoid, the meridians passing from pole to pole will be separated in a direct ratio to the extension of the different diameters and circumferences. This operation is illustrated whenever an umbrella is raised.

As a consequence of the separation of the meridians in a hollow sphere or ellipse, particles which before occupied a certain space between two meridians, will be compelled to separate in order to occupy the increased space between the meridians. The consequence will be that, in every case such as we have supposed there will be a struggle between the cohesion of the particles and the disruptive force due to the separation of the meridians, and whenever the disruptive force overpowers the cohesion of the particles lying along and between two of the meridians, a solution of continuity will take place. The disruptive force will be at a maximum at the equator, but the same conditions of disruptive force opposed to cohesion will be found in different proportions in every line parallel to the equator. As a result, in a perfect sphere with homogeneous walls such a solution of continuity would naturally begin at the geometrical equator and extend equally and simultaneously in opposite directions in a meridional line toward the poles *But in a spheroid or ellipsoid not regular in* shape, and with walls varying in strength in different parts, the result would be modified by these variations This is exactly what we find in the case of the skull, which, while bearing a certain resemblance to an ellipsoid, does so in only a modified way, and can only be expected to exemplify the law just stated subject to modification due to its own peculiarities

---

[1] International Encyclopædia of Surgery. Vol. v. pp. 1–109.

[2] Greder, Wilhelm. Experimentelle Untersuchungen über Schädelbasisbrüche. Deutsche Zeitschrift für Chirurgie. Bd. xxi. 5 und 6 Hefte, 9 März, 1885. pp. 491–510. tafeln vii.–xiv.

With this in mind, let us see what the experiments of Messerer show Messerer found that the skull burst in the base under an average pressure 650 kilogrammes applied in a longitudinal direction, and under an average pressure of 520 kilogrammes applied in a transverse direction From this we may draw two very important deductions First, because the burst took place in the base

Corollary I The cohesive power of the base of the skull is less than that of the vault

Second, because the skull burst under a pressure of 529 kilogrammes applied transversely, and under a pressure of 650 kilogrammes applied longitudinally

Corollary II Cohesion is less in the coronal zone of the skull than in the sagittal zone—that is to say, the skull is less able to resist a disruptive force due to blows upon the vertex or sides in the coronal zone than it is to resist a similar force caused by blows applied to the forehead or occiput This is not only a fair inference from the experiments of Messerer, but it also accords with clinical observation

Messerer found again that compression of the skull in a transverse direction, with a force of 520 kilogrammes, diminished the transverse diameter 4 4 millimetres, and that compression in a longitudinal direction, with a force of 650 kilogrammes, diminished the longitudinal diameter only 2 7 millimetres From this we may deduce

Corollary III The skull is more compressible in the transverse diameter than in the longitudinal diameter (This fact tends to strengthen the deduction of Corollary II)

Messerer found, also, that compression of the skull in the transverse diameter, with a force of 520 kilogrammes, increased the longitudinal diameter 0 4 millimetre, and the perpendicular diameter 0 6 millimetre From this we may deduce

Corollary IV The skull is more extensible in the perpendicular diameter than in the longitudinal diameter of the sagittal zone The natural inference from this corollary is that, under the influence of a force applied to the sides of the head a fracture which would naturally begin in some point in the sagittal zone, will begin in that part of it which is intercepted by the perpendicular diameter more readily than in that part of it which is intercepted by the longitudinal diameter—that is to say, at the base or vertex rather than at the forehead or occiput We have already seen (Corollary I) that the cohesion of the skull is less at the base than in the vault, therefore, of the two points just indicated, the base is that of election Here, again, clinical observation supports our deduction

Messerer found, further, that compression of the skull in the longitudinal diameter with a force of 650 kilogrammes increased the transverse diameter 0 6 millimetre, and the perpendicular diameter 0 1 millimetre From this we deduce

Corollary V The skull is more extensible in the transverse diameter than in the perpendicular diameter of the coronal zone (This is the converse of Corollary III) The natural inference from this corollary is that, under the influence of force applied to the forehead or occiput, a fracture which would naturally begin at some point in the coronal zone will begin in that part of it which is intercepted by the transverse diameter more readily than in that part of it which is intercepted by a perpendicular diameter—that is, at the sides rather than at the base or vertex We have already seen (Corollary I) that cohesion is less in the base than in the vault, therefore, a fracture which, for the reasons just stated, would naturally begin at the base of the skull would be more likely to occur near the base than near the vertex In estimating this probability it may also be borne in mind that the horizontal equator of the skull lies nearer to the base than to the vertex, the curvature of the former being much less than that of the latter So that the point of election for the fractures we are now discussing would naturally lie low down on the side of the skull This deduction also is supported by clinical observation

Messerer found, again, that compression of the skull in a transverse diameter, with a force of 520 kilogrammes, increased the longitudinal diameter 0 4 millimetre and the perpendicular diameter 0 6 millimetre, and that compression of the skull in the longitudinal diameter with a force of 650 kilogrammes, increased the transverse diameter 0 6 millimetre and the perpendicular diameter 0 1 millimetre From this we may deduce

Corollary VI The skull is more extensible along the sagittal equator than it is along the coronal equator We have already seen (Corollary III) that the skull is more compressible in the transverse diameter than it is in the longitudinal diameter It is, therefore, seen that the equator along which the skull is more extensible (the sagittal) is that one the plane, of which is cut at right angles by the diameter in which it is more compressible (the transverse), and *vice versa*, which furnishes in the skull a demonstration not only of the elongation of the equator which is produced by depression of the poles of a spheroid, but also of the direct ratio of this elongation to the depression Furthermore, it appears from the observation of Messerer just cited, that a smaller force applied to the skull in a transverse direction will produce a greater elongation of the corresponding equator than will be produced by the application of a decidedly greated force in a longitudinal direction From this we may draw the deduction that force applied to the side of the head is more likely to produce a fracture crossing the sagittal equator than force applied to the forehead or occiput is to cause a fracture crossing the coronal equator This deduction is in accord with the results of Messerer's experiments, in which the skull burst under a pressure of 520 kilogrammes applied in a transverse direction, and only under a force of 650 kilogrammes applied in a longitudinal direction   It is also in accord with clinical observation

We have now analyzed Messerer's experiments so as to ascertain the points of election for disruptive fractures which may occur in (that is, across) two of the principal equators of the skull, the sagittal and coronal   It is not possible to discover in the same way the points of election in the horizontal equator of the skull, for Messerer found that compression of the skull in the vertical direction, between the vertex and the spinal column, led to a direct driving in of the base under so small a pressure as 270 kilogrammes

The results of our analysis of these experiments may be summarized as follows   1 Bursting fractures are more likely to occur at the base of the skull than in the vault   2 Force applied to the side of the head may be expected to produce a bursting fracture crossing the sagittal equator   Such a fracture is more likely to occur in the base than at the vertex   3 Force applied to the forehead or occiput may be expected to produce a bursting fracture crossing the coronal equator   Such a fracture is likely to occur in the temporo-parietal region, and nearer to the base than to the vertex   4 Force applied to the vertex or base of the skull may be expected to produce a fracture at the base [1]

(*To be concluded*)

TUBERCULOSIS PULMONUM, ACUTE AND CHRONIC —ITS NATURE AND TREATMENT

BY A S v MANSFELDE, M D,

OF ASHLAND NEB

PERMANENT SECRETARY, NEBRASKA STATE MEDICAL SOCIETY   PRESIDENT OF THE RAILROAD SURGEONS SOCIETY OF NEBRASKA ETC

(*Concluded from page 313*)

We are now prepared to follow the development as it occurs in the lung, as well as appreciate the conditions which form its clinical picture—and perhaps draw conclusions for the treatment of the disease which approach somewhat nearer the goal striven for—its cure

Grant that the soil for the development of the disease has been furnished in accordance with the requirements above indicated, it is still absolutely necessary that the seed be furnished for the harvest of death—and this is supplied by the bacillus of Koch, the bacillus tuberculosis   The writer is forced by the array of facts upon the one hand, and the absence of one authenticated case of inherited tuberculosis upon the other, to join the army of those who believe that the lesions, *i e*, the anatomical parts of our disease, may and do exist without the presence of the bacillus, but tuberculosis never occurs or exists without the bacillus of Koch

Here it may be well to state (in order to prevent confusion) that the occurrence of tuberculosis in the embryo has been demonstrated, and the author is well aware of the fact, but he also knows that in such cases *the embryo invariably presents the primary lesions in the liver*, the organ with which the mother's blood first comes in contact, *and that the mother is always tuberculous herself,* and the writer has no doubt that in such mothers tubercle bacilli can be detected in the blood   But who has ever heard of a healthy mother, having cohabited with a tuberculous husband, giving birth to a tuberculous child? The bacillus tuberculosis, therefore, is the most important factor in the establishment of the disease, without it tuberculosis is non-existent, however many tubercles may have been formed by the atomization of cheese, flour and other things   We will not stop to dwell on the causes which make the apices of the lungs the favorite seat for tuberculosis, presumably mechanical forces play the greater, if not exclusive rôle in this, of which by far the most important seems the gravitation of the blood in the lung towards the middle and lower lobes   We have already observed that ischæmia is an important adjuvant in the development of this disease   The seed, the bacillus, and in the very nature of things, more often is spores, contained in the form of dust in the air inhaled, finds its way into the lungs, or, more properly speaking, is imbedded upon a spot denuded of its epithelium   (For it must be remembered that normal epithelium offers an insurmountable barrier to the ingress of bacilli, if not of their spores also) Or, what is more frequently the case, the seed is sown upon the contents of the alveoli, or, more definitely stated, the acini of the lung, the food consisting of fibrin, alveolar epithelium and leucocytes, and they grow and multiply, when they are prepared to attack the surfaces denuded of their epithelium, and in this wise

The bacilli find their way into *lymph spaces*, and preferably those connected with the base of the lobulette, or acinus, simply because they are the most abundant in this situation   The advent of the bacillus is the signal for the graphically described " battle of cells with bacteria "   The leucocytes endeavor to eat the intruder (and this must not be considered a fiction, for it has been observed taking place), and if successfully accomplished, as no doubt often happens, the description would end with the death of the hero—but, unfortunately, the bacillus will not only triumph, but in conquering it grows and multiplies   Other leucocytes now endeavor to devour both the bacilli and their victim, and in like manner fall an easy prey to the parasites   Thus quickly a conglomerate of cells (a ball, a tubercle) is formed, the type of the recent tubercle, minus the giant cells   And the absence of the giant cell in these formations is not an accident, but an invariable rule   It is otherwise when the bacillus is attacked (or attacks?) by the aforementioned endothelial cells of the lymph spaces, or the amœboid cells of the fibrous tissue   Here a somewhat different manœuvre ensues   The bacillus finds its way into the cell, or is taken up by the cell, we do not know which, and now, by the emanation from its economy of a poison of the nature of ptomaines (D L Brieger), or by the supply of a ferment (capable of being furnished by all albuminoid

---

[1] It may be worth while to call attention to the fact that there is no essential difference between a blow applied directly upon the vault or side of the skull and one transmitted through the spinal column by a fall upon the feet or buttocks

substances of cells), the part of the cell *on* which, or *in* which the bacillus is lodged necroses by a typical coagulation of its substance (Prof C Weigert) That this is true necrosis, namely the partial coagulation, is evident from the fact that the nucleus not only remains alive, but its adherent protoplasm accumulates and furnishes the means for the segmentation of the nucleus, but whilst this occurs in the one cell, another, and more often many cells, not only pass through the same changes, but adhere, as would be expected, to the *necrosed* part of the first cell so affected, thus forming a plexus of a very peculiar form, *i e*, centrally a mass of necrosed tissue, surrounded with the living protoplasm of cells, which contains one or more nuclei, of course peripherally placed, like rosettes or wreaths, when the whole conglomerate is considered, this is the typical *giant cell* of Langhans

And just as in the tuberculous ulcer the bacilli occupy the ground between dead and living tissue, so here we find in the giant cell, the bacilli between the necrosed central portion and the periphally placed nuclei, which, as is known, always disappear when the cell has become the victim of the coagulation necrosis In fact, even the bacilli are lost to view in this dead part of the growth, having, as some writers assume, suffered destruction, only with this difference, that they have left their progeny, the spores, behind (which has not yet been demonstrated by staining media), to serve in their turn the purposes of a renewed invasion of the adjacent tissue Exterior to this conglomerate of cells, whether composed of leucocytes only, or of giant cells and leucocytes, the consequences of an irritation of the tissue always appear in the form of an invasion of multiplying tissue cells and wandered-in white blood corpuscles, to give rise to the attempt at organization most always noted upon the periphery of slowly forming tubercles and masses of tubercles And this attempt at organization succeeds in the ratio of the blood supply to the parts, and their own normal constitution, and fails as the parts approach the composition described by Formad, and known as the scrofulous If it succeeds, then the wall of cicatricial tissue built around the tubercle prevents the invasion of the surrounding tissues by its contents, the spores of bacilli particularly, after they have been set free by the softening of the tubercle And this holds good not only for the single tubercle, but also for any number of them, and, indeed, whether they exist upon a free surface, or upon the wall of a cavity which is of their creation

As already stated, the tubercle grows peripherally, *i e*, the central one having softened, its contents rapidly invade adjacent parts to add like growths to the central mass And so minute are the single growths, that a compound tubercle of the size of a poppy seed is made up of at least *thirty six* sub miliary nodules (Rindfleisch) Another method of peripheral enlargement consists in the coalescence of adjoining tubercular masses—this concentric and peripheral growth proceeds until the base of a terminal bronchus is surrounded by a tubercular mass which is known as Carswell's grapes Hitherto, as is often the case, tubercles have been, and most unjustly so, described and figured as the cause of the disease, and yet they are only so many monuments to friendship, unwise friends, we are willing to admit, who have in their component parts, the cells, paid their friendship with their death

Tubercles are not disease, but nature's method of staying disease and death, for as long as they themselves remain untouched by decay they are harmless to the economy Yet, like too assiduous friends, they may overdo their good offices (though we suspect it is the fault of the anatomical relations of the parts and the importance of their functions to the economy)—they grow until not only the bronchial twig but the pulmonary vessels, the artery in particular, are strangulated either by the masses which surround them, or by the invasion of the tubercles into them, and in both instances, though not a typical embolus results, the consequences are exactly the same, the tissue dies invariably, and when removed it leaves a cavity This is the case whether the process proceeds from the surface of a mucous membrane, as that of the intestines, or from the situation just described We said a *cavity* purposely, and not an *ulcer*, for this, after the necrosed tissue is removed, presents a granulating surface bathed in pus, indicative of an effort at redemption Whilst the wall of the cavity presents nothing but necrosed and dying tissue, made uneven by larger and smaller masses of tubercles in all stages of development and decay This is the picture of chronic tuberculosis pulmonum

Acute miliary tuberculosis of the lung presents in its causation an entirely different aspect, though the final issue is identical with the one just described *It consists most generally in a multiple embolism of the capillaries of the pulmonary artery, induced not by bacilli or their germs, but by debris from softened foci (glands more often) with bacilli in and on them, which have found their way into the circulation* In this causation two other sources must be included direct injection into the circulation of the virus in sufficient quantity, and reversion of the lymph stream Inoculation of the virus belongs in the first category, as miliary tuberculosis is noticed only after the formation of tubercles *in loco* Direct injection self evidently reverts to the first category also, the place of the introduction of the poison not being considered Reversion of the lymph stream as a cause of miliary tuberculosis of the lung has only of late obtained a safe foundation by the observations of v Recklinghausen In cancer of the bronchial glands, it is not seldom that metastases are found in the subpleural tissue The same transmission must be admitted for broken down tuberculous material from the same glands The infective embolus, for such it is, provides all the conditions we have found in the bronchi, and have claimed as necessary for the multiplication of the bacilli and their succeeding destructive work All subsequent infiltration of the tissues is identical with that of the bronchial disease, with this difference only, that in the latter the infiltration is primarily located in the *peribronchial* lymphatics, whilst in the former it is found in the *perivascular* lymphatics, and that in this the processes are generalized, and in the other they are lo calized. And finally, that infection of both lungs ensues from all the sources mentioned but one, reversion of the lymph stream, in which the general tubercular formation is unilateral in the earlier stages of the disease.

To strengthen the scientific basis of the treatment of tuberculosis we must mention the freedom from *this disease enjoyed by persons* with lesions of the heart, of which mitral stenosis is the one most rarely complicated with pulmonary tuberculosis. Ruehle, in Ziemssen's "Cyclopædia," page 507, says: "The correctness of the general statement must probably be admitted." And after giving Traube's view, that the more copious effusion from the pulmonary vessels, whereby the dessication and caseation of morbid products are promoted, is perhaps the reason for this exemption from the disease, he dismisses it "because a discussion of *hypotheses* (italics mine) is out of place here." I certainly agree with him as to the impropriety of the discussion of hypotheses in a lengthy paper like his or ours. Yet the great clinician's (Traube's) view can no longer be classed with hypotheses. It is a fact that in all the lesions of the heart which seem to lessen the occurrence of tuberculosis pulmonum the right ventricle is hypertrophied, and this hypertrophy is not caused by an interference with the blood current between it and the lung, but between the lung and the general circulation, within the province of the left heart. The changes produced, in consequence of these lesions of the heart, in the lung, are strictly in keeping with the conditions required to prevent the occurrence or the development, to any extent, of the lesions of tuberculosis in the lung. It is a clinical fact that the hypertrophied right ventricle will induce congestions in the lung, particularly if the blood stream is impeded on the left side of the heart. This chronic pulmonary congestion is followed by two sequelæ—an interstitial connective tissue hyperplasia (cirrhosis of the lung) and an increase of the velocity of the lymph stream, both conditions which our exposition will warrant us in accepting as diametrically opposed to the development of tuberculous lesions. Indeed, the latter function, the ready flow of lymph, is so very important, that its maintenance and its increase become the momentous questions in a rational treatment of the disease. That this is normally brought about by congestions, by the active contractions of the muscles of a part, by deep and often repeated in and expirations, and by the normal relation of the histological elements of the tissue, needs no demonstration.

Stress is here put upon *the artificial increase of this* function by Cohnheim's experiment. He observed the lymph stream from the thoracic duct increased twenty five times, when he injected into the circulation forty per cent. of the body weight of a $\frac{6}{10}$ of one per cent. solution of chloride of sodium in distilled water. Much, indeed, has been said of the prophylactic treatment of tuberculosis, and much more is yet unspoken, and far more unheeded. Prevention in this disease simply means a shutting out from the economy of Koch's bacillus. To enumerate the means by which this ought and can be done, would necessitate the incorporation in this paper of everything that hygiene has suggested to keep air pure as the breath of life. The worst of all breeding places for tuberculosis is the crowded work shop, illy ventilated and overheated, and in which work is performed which produce dust full of irritating particles. The least offensive place is a mountain home, in an equable, dry and rather cool climate, where you are your own neighbor, and the only one. To enumerate the methods of infection would prove an equally herculean undertaking. From the mother's blood (Johne) and her mouth and lips (Herterich), from inoculations through trivial injuries, as a cut in the finger (E. A. Tscherning), or the dentist's forceps (the author), from inhalation of the poison in home, school, work shop, crowded hall and prison cell, from food and clothing, tuberculosis may take origin. It is certainly very careless, nay, criminal, if the author's explanation why measles and *pertussis* are so likely to be followed by tuberculosis (and this is a fact) is correct, to permit a child sick with these disorders to remain in the company of a person suffering from tuberculosis. It should never be allowed if it can be avoided.

The cure of diseases and conditions which favor the development of tuberculosis forms, of course, a very important part of the prophylaxis of the disease. Besides this, any and all means which favor the restoration or the maintenance of the highest vitality to the elemental parts of the lungs, as well as of the whole body, are of the greatest importance not only in the prevention, but also the cure of tuberculosis. It is self evident, from what has been said, that the specific cure of tuberculosis demands, in the first place, the destruction of the bacillus. Much has been suggested and done in this direction to warrant the hope of final success. This presumably lies in the direction of inhalation of parasiticides, and their injection by the nearest and most direct channels practicable. And if these inhalations and injections contain the means (alkaline or neutral solutions) for the solution of the tubercles, then the cure of the disease will become a scientific certainty. It is not the object of the writer to burden medical literature with an exhaustive essay upon tuberculosis, such have been furnished often and by abler writers. He will therefore not be charged with omissions—that mention has been made in a general way only, of the treatment which to day receives universal sanction.

The heart should be induced to do its best by stimulants and tonics, to establish the conditions described at length, which will curtail the disease, namely: *remove impediments to the free circulation of fluids* in the lung and favor cicatricial growths around tubercles and their cavities.

The sewers of the body, particularly the kidneys, should not be neglected, rather stimulated to remove all effete matter promptly and thoroughly from the body. Enlarged glands, wherever situated, particularly on the neck, and in reach of the hypodermic syringe, should be made harmless by injections of iodine and carbolic acid (as has been twice successfully done by the writer). Cod liver oil should never be omitted, because of its undoubted influence in removing or preventing the formation of scrofulous tissue

In what has been said no attempt has been made to explain the manner or cause of the formation of "scrofulous tissue" That it is acquired *intra vitam* no reasonable doubt can be entertained, and for its inheritance an array of facts speak, which are invincible The *why* in both instances is yet *sub judice* The writer has little doubt that in its proper time it will be shown that the digestion, assimilation and reappropriation (burning) of fat in the economy, and particularly its relation to the proper maintenance and rejuvenation of the tissue elements furnish the field upon which the pathologist will have to seek for a solution of this anomaly of the connective tissue and its lymph spaces Even the crude conception of oil as a *lubricant* for man's economy (which is so often likened to an engine), opens a vista of thought far too vast for the limits of this paper The formation of cells from dividing protoplasm is unthinkable without the intervention of fat, a conglomerate of cells is easily produced without this separating medium Indeed, the distinguishing feature between caseation and softening, and suppuration, seems to be the absence of fat in the former For this, and the poverty of blood supply (not to forget impeded absorption by way of the lymphatics), produces the non-separation of the cell conglomerate, and, when the circulation is altogether strangulated, death of these elements and destruction by caseation, and removal by the intervention of softening Whilst in suppuration, hyperæmia in the presence of fat produces a rapid multiplication of cells, *i e*, the formation of pus corpuscles These are some of the thoughts which urged the necessity of the use of oil in this disease, cod liver oil particularly, since it is one of the most easily digested of fats, and perhaps because its natural combination with iodine makes it more capable of entering into intimate relation with the watery compounds of albumen in the tissues, thusly facilitating the interchange of fluids and the multiplication of cells, and the rejuvenation of the tissues Finally, the use of iodide of potassium is again urged upon the profession as a remedy which may yet prove itself the chief anchor in this disease

If the author's knowledge of the disease will entitle him to an innovation, a suggestion for the treatment of it, he will urge upon his fellows, particularly those connected with large hospitals, the trial of subcutaneous injections, in the neck particularly, of iodide of potassium and a small dose of iodide of mercury—say five grains of the former to gr $\frac{1}{50}$ of the latter, highly diluted, and as often repeated as good judgment will warrant, as the most rational specific medication which, in the writer's opinion, it is possible to deduce from the nature of the disease And, if to this be added a careful observation of all the suggestions which experience has sanctioned, together with a never resting battle, by word and deed, against the spreading of the tubercle bacilli, we will succeed as never before in preventing and curing the disease

Ashland, Nebraska, December, 1885

A GRAVE CASE OF NERVOUS DYSPEPSIA CURED BY MASSAGE AND REST IN BED

BY M STAMM, M D,

OF FREMONT, OHIO

It is not my intention to enter fully into the details of nervous dyspepsia, especially as its clinical picture is rather vague, and presents a complex of symptoms of the greatest variety But the literature of recent years has furnished sufficient data to demonstrate that there are such affections of the stomach, which differ materially from the diseases of the chylopoietic system, otherwise described and classified, and which for the present may aptly be brought under the head of "nervous dyspepsia" Doubtless almost every busy practitioner has met with cases which presented such vague symptoms, and he vainly looked about for a description or a name which might approximately cover the picture presented Our text-books of recent date make but short mention of it The name "nervous dyspepsia" itself betrays the fact that we have no clear understanding of the pathological condition further than that the nervous system furnishes the prominent basis of these manifestations Authorities are not agreed yet whether the changes are of local or central origin in the nervous system

The cases thus far reported tend to show that some are due to functional disturbance of the pneumogastric nerves, and others to the ganglionic system Another class of cases, again, may be referred to some abnormal condition of the central nervous system, especially cases due to mental influences, as care anxiety, etc From this we may see that it is no easy matter to form a diagnosis at the beginning, and that sometimes only the futility of the treatment instituted for the more common affections of the stomach and the obstinacy of the case will help to lead us on the right road Worse than that, there are cases in which post-mortem examination alone will open our eyes, as a late report of a meeting of the London Medical Society graphically shows Before that great body of highly scientific men Dr Stephen Mackenzie, in a very instructive paper, mentioned two cases of apparent gastric disease, in which post-mortem examination failed to reveal any certain evidence of disease of the stomach, though the gastric symptoms were even definite enough to excite more than a suspicion of the presence of gastric ulcer Indeed, one of the cases had been diagnosticated by more than one physician as a typical clinical case of the affection, whereas *post mortem* it was admitted to be a case of *apepsia nervosa* Dr Stretch Dowse, in the discussion, even ventured the opinion that perforating ulcers of the stomach were invariably of nervous dystrophic origin Besides the difficulty of diagnosis, we may see that such cases even sometimes may terminate fatally, at least, that the treatment hitherto applied and recommended is not always followed by the desired effect Such cases are generally looked upon as the *crux medicorum*, and not unfrequently go from physician to physician, and finally into the hands of quacks

It may therefore not be out of place here to refer to a treatment which, in the case mentioned below, had a surprisingly rapid effect We all know what striking results the Weir Mitchell method of treatment will accomplish in some grave cases of hysteria and neurasthenia, especially when the state of nutrition has been very much lowered And just the experience in a few such cases under my hands has led me to the remark, made about a year ago before the Sandusky County Medical Society, when the subject of nervous dyspepsia was brought up for discussion, that a similar treatment might result in much benefit in the latter affection The rapid improvement and recovery in the following case, as well as the absence of any symptoms of hysteria and neurasthenia, may well justify the diagnosis of nervous dyspepsia,

Mrs B, æt about 27 years, married five years, had two children, neither of which she nursed herself Her health up to one year and a half ago was excellent About that time she suffered from intercostal neuralgia, which, however, was soon relieved by treating a cervical catarrh of the uterus At times subsequently she would complain of a slight pain and pressure in the epigastrium, her appetite did not suffer any, and restriction of diet would soon relieve her of those feelings About the first of August, 1885, the patient experienced shortly after meals a severe pain in the left epigastric region, which was frequently followed by vomiting She would not admit any error in her diet, and it was impossible for me to find any other cause for her symptoms Repeated examinations of the urine and sexual organs revealed nothing abnormal She could bear very little food, and the various medicinal agents which her gastric symptoms and pain called for had merely a palliative effect, pain and vomiting would frequently recur A case reported by Glax (Volkmann's *Klin Vortrage*, 223), which exhausted all his therapeutical skill and change of climate without any avail, and finally, after he became dropsical, resorted in his despair to exclusive milk diet with the result of complete recovery, induced me to order such a diet in my case It had the effect of lessening pain and vomiting, in fact, subdued it entirely, until she again tried more substantial food This milk diet she kept up for about six weeks, which markedly improved her symptoms, although the emaciation made steady progress Beef peptonoids, which also were tried, produced nausea and vomiting, I think principally owing to their looks and taste Although Mrs B, who in her health was always of a very patient nature, exhibited, *pari passu* with her gradual emaciation, some irritable disposition and signs of weakness, she never showed any real symptoms of hysteria or neurasthenia About the beginning of October she visited her parents living in a larger city, and was there under medical care During her visit her condition was only changed to the extent that her stomach could bear solid food and turned against milk, but her emaciation continued Indeed, in December, when I saw her again, I found her reduced to a skeleton, and could hardly suppress the idea that a deeper organic change was at the bottom of her complaint I accidentally dropped the remark in presence of patient that general massage and rest in bed, with proper feeding, might possibly give her some benefit, when she enthusiastically took up the idea, having heard of some splendid results by Weir Mitchell's plan of treatment in cases of hysteria and neurasthenia I must confess her appearance at that time, the pain and vomiting having returned, did not inspire me with great hopes as to a cure I therefore thought it prudent to propose only a trial of ten days

As her nurse was not just ready to begin massage, I again put her on milk diet for about a week During that time she only vomited once after having taken bread with her milk, her pain also had decreased considerably The beginning of the treatment was fixed for December 24, and as she was free from any signs of hysteria and imbued with such implicit confidence in the result, the treatment was carried out at her own home, which in hysterical cases should absolutely never be undertaken,

In the first four days Mrs B complained of slight pains and pressure over her stomach, turning on her right side would especially increase her pain, but from that time on she experienced a feeling of unwonted well being and enjoyed excellent sleep Her bowels, which always before showed a tendency to constipation, began to move regularly, and after the sixth day she indulged in a bill of fare of rather liberal selection As she reached the tenth day, the end of the proposed period of trial, she concluded to continue the treatment up to the end of six weeks, finding that the stomach made not the slightest remonstrance against those enormous quantities of food which Mitchell and Playfair urge upon their patients In this manner she uninterruptedly followed the road to recovery, and although she has not accumulated such a mass of adipose tissue as some would perhaps lay up, she now presents a picture of perfect health

Fremont, Ohio, February 22, 1886

MEDICAL PROGRESS

Thoracic Aneurism treated by the Introduction of Steel Wire into the Sac —At the meeting of the Royal Medical and Chirurgical Society, on February 23, Dr W Cayley read the report of this case The patient was a man, aged 48, who was admitted into the Middlesex Hospital on June 5, 1885 He had been suffering from symptoms of a thoracic aneurism, since November, 1884, but it was not till five days before his admission that a pulsating tumor made its appearance at the root of the neck, rising about three inches into the neck behind the right sterno clavicular articulation The patient was at first treated according to Tufnell's method, and given large doses of iodide of potassium The tumor continued to increase in size, and it was evident that it must either soon burst externally, or extravasate among the tissues of the neck On June 24, Mr Hulke introduced into the sac, through a fine canula, forty feet of steel wire This caused no constitutional disturbance or local pain, and this portion of the aneurism became completely consolidated Towards the middle of August, signs of the extension of the intrathoracic portion of the aneurism—increasing dyspnœa, and severe paroxysmal cough—became more marked, and there was an increase of pulsation behind the sternum, and towards the left sterno clavicular articulation As it was evident that the aneurism must soon prove fatal from pressure on the trachea, it was determined to endeavor to consolidate the part of the sac producing this pressure Accordingly, on September 10, Mr Gould, in the absence of Mr Hulke, introduced a canula just above the left sterno clavicular articulation, directing the instrument obliquely towards the middle line, and introduced thirty-four feet nine inches of wire No constitutional disturbance followed, but no relief was given to the symptoms, and the patient died in a paroxysm of dyspnœa on September 19 On *post mortem* examination, a large aneurism was found springing from the ascending part of the arch, and communicating with the vessel by a very large orifice, the whole of the upper portion was completely filled by a clot, embedded in which was the wire The wall of the aneurismal sac, where it projected into the neck, consisted only of a little condensed connective tissue The lower portion of the sac, near its origin from the aorta, caused compression and flattening of the trachea, just above its bifurcation The first operation produced the desired result in preventing the imminent rupture of the aneurism The size and connections of the sac rendered the second operation ineffectual

THE PRESIDENT congratulated Dr Cayley and Mr Hulke on their prolongation of the patient's life He had seen all cases of large thoracic aneurism under his care die, except one, and that was in a man of 70, who died of old age thirteen years after clear signs of a large thoracic aneurism had shown themselves The dangers from this treatment by the introduction of wire, he was inclined to think threefold, first from the local irritation induced, as had happened in Mr Moore's case, secondly, from embolism, which might take place in the brain or kidneys, and, thirdly, from the ulceration in the sac, which might be caused by the end of the wire MR R BARWELL could hardly think that the value of this method was as yet thoroughly determined He believed that this was the ninth published case The first was Mr Moore's well known case, the second, a subclavian aneurism, into which Dr Levis had introduced horsehair, the third, a case of popliteal aneurism, into which Mr Bryant had also passed horsehair, the fourth, a case of innominate aneurism, under Dr Rubio, of Madrid, treated by wire, which showed no change of symptoms during the first four days, but after that was lost sight of, and must be presumed to have died, the fifth and sixth cases, under Bacelli, the seventh, a brachial aneurism, under Van der Meulen, into which catgut was introduced, a proceeding which deserved considerable attention, as it avoided irritation, the eighth, a remarkable case of abdominal aneurism, under Professor Loreta, which was treated by abdominal section and separation of the aneurism from its surroundings, and the introduction of six and one-half feet of wire The case did well till the ninety-second day, when the man died suddenly of rupture of the aneurism, just at its point of junction with its entrant artery The aneurism, after death, was found to have in part consolidated, a result he was inclined to attribute to its manipulation, rather than to the small quantity of wire introduced The ninth case was this now before the meeting, of Dr Cayley's and Mr Hulke's in which the man had survived the operation eighty six days The record could not be considered encouraging, and for his own part, he had not been tempted to adopt the operation

DR J LISTON PAUL, whilst surgeon to the General Hospital, at Madras, had had a case under his care in 1874, which he had treated in a somewhat similar manner A native had been brought to him with a very large innominate aneurism, bulging forward on the left side of the sternum, into this he had passed fifteen feet of white cleansed horsehair Slight pain and pricking over the tumor had followed In three days the tumor had grown larger, and gave greater distress, on the fourth day the patient died in a convulsion No search for emboli was made

MR BRYANT was very glad that this method of treatment was again brought under discussion, as he was disposed to think it applicable to more cases than was generally imagined Of course it could only be thought of in those in which pressure, or manipulation, or ligature, was quite impossible All such forms had but a faint chance, but in them the introduction of a foreign body should be attempted, if they were within reasonable reach He preferred horsehair, or fishing gut, or catgut to wire, for the danger of irritation from wire was considerable In his own case, to which Mr Barwell had referred, the man was dying of ulcerative endocarditis, his treatment of the popliteal aneurism with horsehair, had consolidated it, and had so far lengthened life that it had prevented death from its rupture, which was imminent In applying the treatment to aortic aneurism the greatest difficulty would be in diagnosis, but, granted that that could be ascertained, he should consider the treatment most justifiable, and also in the case of abdominal aneurism

MR HOLMES said that he felt strong encouragement from Mr Bryant's case, for the specimen showed clearly the progress that had been made towards cure, and Professor Loreta's case tended to the same conclusion He could not agree with Mr Barwell, that in that case the consolidation had been brought about by manipulation, a careful examination of the specimen showed the wire as the focus of the clot The method had been originally suggested in a meeting of the Society, by Dr Murray, of Newcastle, and he was under the impression that he had made some trials of it To him they also owed the suggestion of the method of rapid compression under chloroform There were many cases in which their choice was limited to two alternatives, treatment by electrolysis or by introduction of a foreign body In his own experience, electrolysis had given purely negative results, others had done better with it, notably Ciniselli In Mr Moore's case, thirty-six yards of rather rigid wire had been used, and he had little doubt it was too much, and had set up inflammation, but he had no hesitation in recommending, with Mr Bryant, either horsehair or catgut, and of the two he rather preferred horsehair, as it does not melt away (which is the chief objection to catgut)

Mr Hulke disclaimed any credit for the paper, which was entirely due to Dr Cayley, but was glad to find that the subject aroused attention The President had suggested three dangers from the operation, the first was of local irritation In Mr Moore's case, the wire was of soft iron, which might easily have passed into the tube of the aorta, not tempered steel, as in Dr Cayley's case For his own part, he had still to learn any method of distinguishing whether the opening from the aneurism into the aorta was large or small The steel wire which he had used had been carefully coiled beforehand, on a mandril half-an inch in diameter, and he presumed that it would coil up again within the aneurismal sac He passed the wire through a Southey's canula, in which were lateral holes, when sufficient had been passed, the end was cut with some effort, and slightly bent, this bent end caught in a hole in the canula, and when the canula was withdrawn, the end of the wire was left out, and pinned the coil of the wire in the aneurism to the chest wall That seemed at first unfortunate, as leading to some bleeding, but very possibly its counter-balancing advantages were greater, for it made it impossible that the coil of wire should fall from the aneurism into the main stream of the aorta If horsehair or catgut were used, he could not feel sure how or where they would travel in the aneurism, nor could they be made certainly aseptic, catgut might be carefully treated, and yet give deadly results if it had been taken from animals dying of *milz-brand* Of the possible methods of treatment, he considered the injection of ergotin in the neighborhood of the aneurism, as suggested by Von Langenbeck, as no longer worth discussion, the treatment of electrolysis in his own hands had proved positively disastrous, if the needles used were fine, they grew hot, and caused sloughing, if they were insulated, great force was needed to push them through the sac of the aneurism The only remaining treatment was that by wire, and the arguments for that were in some cases strong

Dr Cayley considered that the risk of embolism, which the President had suggested, was not serious, it had occurred in Mr Moore's case, not from the treatment of the aneurism, but from the ulcerative endocarditis He admitted that it was impossible to be certain in any diagnosis of a large opening into the artery from a small one, but, roughly speaking, a louder bruit indicated a narrower opening He was able to assure Dr O'Connor that there were no bubbles either in his case or in Mr Moore's —*British Medical Journal*, February, 27, 1886

Action of Mercury on the Blood in Secondary Syphilis and in Anæmia —The influence of the salts of mercury on the circulation has been recently the subject of a most thorough and strictly scientific clinical study by **Dr L Gaillard** (*Archives Generale de Medecine*, November, 1885) The subjects on whom the first series of observations was instituted comprised

1 Syphilitic patients without or with a slight anæmia

2 Syphilitic individual with an advanced state of anæmia

3 Syphilitic individual also with an advanced state of anæmia, but in a condition of mercurialization

Gaillard's conclusions are as follows

In the first group a diminution of the number of blood globules and of the hæmoglobin could be observed in the course and at the end of the mercurial treatment

In the second group a favorable result could rapidly be noted, both the number of blood globules and the hæmoglobin increasing considerably and in a short time

The subject of the third observation was not improved The anæmia had no tendency to disappear, even after the effects of mercurialization had passed away There was an evident intolerance of the drug, which must be borne in mind both regarding prognosis and the estimation of the therapeutic result

Comparing these results, we see that the second category, representing syphilis and anæmia, profits most from the tonic and reparative action of mercury It is hence in these patients that we can look upon mercury as a restoring and augmenting agent of both blood globules and hæmoglobin This refers only to the red blood corpuscles, the white ones were nevertheless counted by Gaillard in each instance Their number appears to diminish under the influence of mercury, as has also been as early as 1874 by Wilbouchewitz [Still it appears hazardous to make any definite statement in this respect We all know the instability and variance locally and numerically of the white blood corpuscles Remembering their abundance in persons affected with even slight suppurations, we would not be surprised to see them decreasing in a woman suffering with vaginitis after the cure of the local trouble]

The second series of observations refers to the action of mercury on the blood in anæmia The patient took ordinary doses of either the protoiodide of mercury or of the sublimate The obtained results are comprised in the following theses

1 The number of red blood globules can decrease in anæmic persons under a mercurial treatment in the beginning without reattaining the original numerical status More frequently, however, they increase in number progressively up to the fourteenth day, when a slight reduction takes place again

2 The hæmoglobin increases daily and progressively up to the twenty fourth day, then it is reduced toward its original figure, but surpassing it still, if the treatment lasts for several weeks

3 The hæmoglobin increases more considerably in proportion than the red blood corpuscles It increases even when the latter diminish in number, so that mercury can be placed alongside of those metals which elaborate hæmoglobin

4 The bodily weight increases nearly constantly under a mercurial treatment Still, we are unable to establish an exact relation between this phenomenon and the condition of the blood —*Therapeutic Gazette*, January 15, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY, MARCH 27, 1886

THE ETIOLOGY AND PREVENTION OF RABIES

At the meeting of the New York County Medical Association on March 8, DR HERMAN M BIGGS, Instructor in the Carnegie Laboratory, who recently visited Paris to study Pasteur's methods with regard to rabies, read a paper on "The Etiology of Rabies and the Method of M Pasteur for Its Prevention" It is not necessary to give in detail his argument for a specific origin of the disease Suffice it to say that he expressed the opinion that the occasional spontaneous development of rabies in certain of the carnivora, as advocated by many distinguished veterinarians, must be entirely rejected in view of the facts recently demonstrated with relation to the germ diseases, and that we must accept absolutely the conclusion that this disease is maintained and spread solely by its contagious principle, there being no other causes in operation Hence it is a matter of great importance that the fallacious ideas prevalent among the laity, and to no small extent among the profession, in regard to the influence of climate, season, hunger, thirst, food, pain, anger, ungratified sexual desire, etc, as predisposing or exciting causes, should be corrected There are no more reasonable grounds for believing that any or all of these influences combined can bring about the development of a single case of rabies, than that unfavorable sanitary conditions can produce small-pox when the specific *contagium vivum* of that disease is not present A wound or injury produced by the teeth of a non rabid dog, one whose saliva does not contain the living organism (whatever may be its nature), which is the essential cause of the affection, can no more bring about the specific disease which we call rabies than can the wound made by a sterilized knife

In regard to the nature of this *contagium vivum*, said Dr Biggs, we have no absolute knowledge, except that it must be a living matter capable of reproduction and multiplication when transferred to the living organism, and there producing a specific disease manifested by varying symptoms in the different species of animals affected, of whose presence or virulence we can only know by the results produced when introduced into the blood of previously healthy animals That it is exceedingly minute is shown by the difficulty experienced in its demonstration, and that it is a micro organism belonging to the schizomycetes is rendered probable by the similarity to other known pathogenic micro organisms, as regards the mode of its transmission and development Some of the conclusions arrived at by Pasteur in his earlier work have not been confirmed either by his own later investigations or those of other observers, and are in some respects opposed to the results recently reported Unfortunately, too, in his last communications he has not discussed the question so much in detail as could be desired, nor has he given definitely the number or character of the experiments upon which his conclusions and the general principles drawn from them are based The efficacy of Pasteur's present method was proven by inoculating fifty dogs, with success in every case in rendering the animals refractory to rabies After having arrived at these results Pasteur felt justified, after consultation with MM Vulpian and Grancher, in inoculating the boy Joseph Meister, who unexpectedly presented himself for treatment July 6, 1885 In order to determine the virulence of the virus used in this case two rabbits were each day inoculated in the usual manner with the same virus as that used for the boy These inoculations showed that the cords used on July 6, 7, 8, 9 and 10 were not virulent, since they did not produce rabies in the rabbits inoculated on these days The cords used on July 11, 12, 14, 15 and 16, however, were all virulent, and of a constantly increasing virulence Rabies appeared after seven days of inoculation in the rabbits inoculated with the cords of July 15 and 16, after eight days in those of July 12 and 14, and after fifteen days in those of July 11 Notwithstanding that in the last inoculations virus was used which was far more virulent than that of rabid dogs which have contracted the disease in the ordinary way, these inoculations were followed by no symptoms whatever, and though more than six months have elapsed since the treatment, the boy still remains in good health

The interpretation which Pasteur gave of the prophylaxis against rabies afforded by his method, by which an alteration in the virulence of rabic cords is produced by the process of dessication, was, that the continuous contact of the dry air brings about a gradual diminution in the intensity of the virulence of the cords, until it finally becomes extinct, that the prophylactic method in its application depends for its efficiency upon the employment at first of a virus without appreciable activity, followed by a weak virus, and then by a more and more virulent form, that the diminution of the virulence of the cords is due to an impoverishment in *quantity* of the virus contained in the cords, and not in the impoverishment in *virulence* Consequently, in the inoculations, the virus used is always identical as regards its virulence, and is variable only in respect to the quantity employed, so that the condition refractory to rabies follows from the employment of very small, but constantly increasing, quantities of virulence This interpretation of the method of action of the virus, said Dr Biggs, is the more interesting, inasmuch as a new and quite different principle is involved from that obtaining in the vaccine for small-pox or the vaccines devised by Pasteur for the prevention of anthrax, chicken cholera and typhus in pigs In small pox we have a virus modified in character and virulence by its passage through another species of animal, in anthrax, chicken cholera and typhus in pigs we have a virus modified in respect to its virulence by the conditions of temperature to which it has been subjected during its developmental growth, and, finally, in rabies we have a prophylactic method dependent upon the employment of a virus always constant as regards its virulence, but used in very small and constantly increasing quantities

As to the duration of the refractory condition (to rabies) after inoculation, Pasteur believes this to be not less than one year, probably considerably longer, but as yet no data are available on this point With regard to the conclusions as to the accuracy of Pasteur's observations and methods, Dr Biggs thinks that the strongest evidence of the efficacy of the methods for the prevention of rabies rests upon the results of the experiments upon dogs If Pasteur had been able not only to render fifty dogs refractory without a single failure, but had also prevented the development of rabies in a larger number after they had been bitten—both of which he asserts he has positively accomplished—then the question as to the prevention in human beings is only as to the method of application Dogs are far more susceptible and liable to the disease than human beings, and the character of the disease being evidently the same in both, if dogs can be made refractory it is not assuming too much to conclude that the same is true of human beings In concluding his paper Dr Biggs frankly acknowledged that the evidence as to the efficacy of Pasteur's methods is not altogether satisfactory But in the light of his former brilliant and valuable scientific work is it probable that he could have spent six years of study to rabies without getting some substantial result? Or does it seem probable that he has been dealing all these years with some form of septicæmia, as has been suggested, laboring under the delusion in the meanwhile that it was rabies? This I cannot believe, and if it is not true, then Pasteur's conclusions must be in the main correct, for certainly no one will question his honesty "

As to the spinal marrow being employed as the agent for transmitting the virus, Dr Janeway said, in the discussion of the paper, that it seemed to him entirely appropriate the manifestations of the disease showed that the germ of the disease was in the spinal cord and medulla oblongata as well as in the saliva, or, if this was not the case, that it circulates as a specific poison in the blood and acts as an irritant upon the nervous centres He thought that there was no reason to doubt that dogs had been made refractory to rabies by Pasteur's method, while in human subjects it had at least proved harmless in more than three hundred cases

It is an indisputable fact that Pasteur has for years been experimenting with a disease which almost without exception runs the same course and produces the same symptoms, the period of incubation in rabbits being always about fifteen days We must entirely agree with Dr Biggs that if, as some assert, this affection be a form of septicæmia, if must be an entirely new form, since no variety of it is known which has a period of incubation in rabbits of fifteen days After cultivation the inoculation in rabbits is seven days, and in dogs eight or nine days In regard to the suggestion of Dr Flint, Jr, that control experiments should have been made, such as the injection of bouillon subcutaneously, to which no spinal marrow was added, Dr Biggs said that inoculations had been made subcutaneously and into the veins, instead of under the dura mater after trephining, the only difference that had been noted in the result was, that the period of inoculation was longer under these circumstances The reason why Pasteur adopted the method which he now employs was because he found, after many experiments, that with it the period of inoculation is shorter, and the process more certain, than when any other method is used Pasteur has inoculated dogs which were placed in cages with and had been bitten by rabid dogs, and *in not a single instance* did rabies result These experiments have been frequently tried under the supervision of the official commission appointed to investigate the matter, and this evidence is of the greatest importance in establishing Pasteur's claims as to the efficacy of prophylactic inoculation of rabies

"ACADEMIC STUDIES IN RELATION TO MEDICINE"

In the department of Domestic Correspondence in this issue of THE JOURNAL will be found a letter on this subject by DR R LOWRY SIBBET, of Carlisle, Pa It will be remembered that Dr Sibbet read a paper at the last meeting of the American Academy of Medicine entitled "The Study of Medicine as a Means of Education," which was editorially noticed in THE JOURNAL of January 9 The present letter from Dr Sibbet must be taken, it seems, as a reply to our editorial notice of his paper

It is an evidently untenable proposition to say that *any* educated man, with large experience in any direction, is in a position to tell a boy what studies he should pursue as preliminary to the study of medicine The President of Yale College is an educated man, and one of large experience, but surely he is no more fitted to speak dictatorially on this subject than many a well read, clear headed physician who sees reflected in himself the evils and mistakes of the ordinary classical course "An educated man" is a relative term, with nothing fixed or definite in it We cannot reason correctly unless we know the data from and upon which we reason It is incorrect to say that one who has not pursued a study (such as mathematics) for a series of years is not in a position to judge of its relative value as a means of education In view of the statements made in his paper before the American Academy of Medicine, Dr Sibbet's use of the words "mathematics" and "languages" is entirely too broad for this discussion We showed in our editorial that there is a great difference between ancient and modern mathematics, and it is useless to repeat what was then said Hence we cannot argue the matter when our correspondent fails altogether to define his position, which is entirely different, as we shall show, from that taken in his first paper In that paper he mentions only two languages, Latin and Greek In point of training value one language has no advantage over another It is a very simple matter to define and specify the mental processes involved in studying different subjects, and this is all that is required in determining the training value of any subject or study To deny this is to confound the machinery of thought with thought itself, to mislead ourselves and make no progress, and to obscure the whole subject in a verbose fog of unwarranted assumptions

In the propositions stated under (1) Dr Sibbet argues entirely beyond the question at issue No one has proposed that medical men, or those of any other profession, should regulate education or the curricula of colleges He asserts in his first article that a man *must* be thoroughly grounded in Latin, Greek and mathematics in order to be fitted for the study of medicine We denied that those studies are absolutely essential for a preliminary education for medicine, or for training the mind, intellect or faculties (or whatever we choose to say), and we *gave our reasons* for the denial Dr Sibbet has not shown that our reasons are incorrect, nor has he asserted that we reasoned from insufficient data He adduced no proofs of his assertion, but evidently, as is so often the case, the assertion was made on the authority of that long list of classicists who have said the same thing over and over over again without bringing forward one iota of proof, or giving any reasons for it that would stand analysis In his first article he did not refer to the value of scientific education (academic) or to science at all, except so much "as is usually taught in respectable classical colleges"—which means, usually, none at all Why then does he now speak of "elective courses," which, as would be inferred from his article, he does not recognize as proper courses of study? It is seen that he has now changed his base of argument almost entirely, as he really acknowledges that a youth may, after all, be educated without being forced through the classical course It is a mistake to say that the medical profession in the United States has ignored every standard, academic and medical, and in proof we may point to the Seventh Annual Report of the Illinois State Board of Health

His answer to the question, Where should a student who desires a good education prepare for the study of medicine? is in a classical, scientific or literary institution How does this accord with what he says in his first article that the student (before studying medicine) has "studied mathematics, languages, rhetoric, mental and moral philosophy, and as much chemistry, geology and astronomy as is usually taught in respectable *classical* schools To all such we would say that they have laid a solid foundation upon which to add professional studies Their education has been in all directions, not merely one class of mental faculties, but all have been exercised and disciplined" If an education *in all directions* can be obtained in a classical school, it must be evident that such cannot be the case in any other school, since the methods in the different schools are essentially different He has thus placed himself in the anomalous position of recommending schools which, as he has shown, he considers objectionable But the truth is, there is no system of education which will educate in all directions He evades the question, which he asks, What shall a student, who desires a good education, study until he is capable of deciding what he should do in life? His statement, under this question, that educated men in all countries and for many centuries have presented and advocated a combined classical, scientific, and literary course of study as the very best that can be devised for young men who desire to enter the learned professions, is singularly inaccurate Three centuries are not *many*, and that is a liberal allowance for the age of our classical system In the statutes of the University of Paris of 1600 the studies in arts are defined as Latin, Greek, Aristotle's Philosophy, and Euclid Scientific and literary studies had no part or lot in the education of that period Inasmuch as our science of to-day can scarcely be said to be one century old, it is manifestly absurd to say that it has been advocated for many centuries It is not less absurd to hold that the preliminary education for the medicine of one hundred years ago will fulfil the requirements of to day

It should be remembered that in speaking of the study of science we do not refer to getting lessons from text-books, but to the study of it in the laboratory Canned science—that obtained from books—is not wholesome brain food It is unreasonable to talk of special schools for the preliminary study of a particular profession There is no need for them if instructors would study the pupils instead of making the pupils study them The single fact that the elementary principles of chemistry and physics are "taught" in the medical schools is conclusive proof that they are not properly taught in the academic schools On this subject we have already expressed our opinion in The Journal of May 2 and June 6, 1885 In this connection we take pleasure in referring to Dr A L Gihon's Presidential Address before the American Academy of Medicine (at the same meeting at which Dr Sibbet's paper was read), the more so because he plainly shows that he does not agree with some members of the Academy in thinking that a boy's mind must be matured on Latin, Greek, mathematics and canned science

Finally, it may not be amiss to compare Dr Sibbett's letter in this issue of The Journal with some of the statements in his first paper, as in this way we may more easily see how high a valuation he sets upon science and scientific schools in education "The acquisition of knowledge and mental discipline are therefore dependent upon certain conditions

No one would think of dispensing with books, instructors and institutions" Books may be and often are dispensed with in teaching science The quotation can therefore refer only to *classical* education In the requirements for admission to medical colleges, he tells us, "classical studies are generally treated with indifference" We know that scientific studies are equally disregarded, why is not the fact mentioned? Again, "Shall we tell it in New York that the oldest university in America does not require a knowledge of the five declensions of Latin nouns for matriculation in her medical department?" That is certainly not so disgraceful as not requiring a knowledge of the elements of natural science "Another portion of our profession—possibly one fourth—have advanced as far in algebra as quadratic equations, and in geometry as the *pons asinorum* In Latin they have reached the Bucolics of Virgil, or the Jugurthine War by Sallust, and in Greek the third book of Xenophon's Anabasis Of rhetoric, logic, mental and moral philosophy they know nothing" From this it seems that he does not consider scientific principles as of any importance whatever Again, "But what shall we say of the remaining half of our profession? They have never even glanced at the academic studies referred to, and consequently they are without the mental discipline and training which these studies always bring The student must become an active agent, not merely a passive one He must work out problems in mathematics for himself, if he has not done so, he must translate foreign languages into good English, if he has not done so, he must prepare an original essay every week for four or five years, before he is properly prepared to study medicine" It seems absolutely useless to talk of scientific schools and scientific education until the papers from which these quotations are taken are retracted, and until this is done we beg to take leave of the subject

INTERNATIONAL MEDICAL CONGRESS OF 1887
PROGRESS OF ORGANIZATION

The statement in some recent medical journals to the effect that the progress of organization for the International Medical Congress of 1887 "seemed to have come to a standstill," is by no means correct, as the following facts will show

Soon after the final meeting of the General Committee on Organization appointed by the American Medical Association in September last, at which the said Committee adopted entirely satisfactory Rules

for the Congress, selected the general officers, and chief officers of the several Sections, thereby developing under their Rule Ten an independent Executive Committee of the Congress, authorized to take charge of the entire interests and further management of the organization, the said Executive Committee held a full meeting in November and organized for their work The President and Secretary General were instructed to issue a preliminary circular giving the general officers selected and the Executive Committee, together with the Rules in English, French, and German, and distribute the same both in Europe and America At the same meeting sub committees were appointed on all the more important items of unfinished business, to report at another meeting of the Executive Committee to be held in a few weeks from this time These sub committees have been quietly but diligently prosecuting their work so successfuly that at the next Executive Committee meeting there will be neither difficulty nor delay in filling all vacancies needed to make the preliminary organization of the Congress complete, and be ready to proceed directly with the preparation of the details for the final programme for the work of every department of the Congress The local committee of reception and arrangements at Washington, with Dr A Y P Garnett for Chairman, has increased its members to fifty, acting in harmony, and for more efficiency in execution, divided into seven sub-committees, with each its allotted part of the work to be done

This is a guarantee that every possible arrangement will be made for the interests and comfort of those who may attend the Congress from any part of the world, and that active efforts will be made to secure the lowest rates of travel on ocean steamers and railroads for those coming from other countries, and in regard to which timely notice will be given With the aid of the Associate Secretary-General in New York the circulars anouncing the Preliminary Organization and Rules of the Congress were freely distributed in foreign countries, and its reception was immediately followed by cordial responses, which have continued to be received almost daily at the office of the Secretary General from many of the countries of Europe, more especially from Great Britain, France, Germany and Austria, giving assurances of personal attendance, promising communications for certain Sections, and asking for further information Instead, therefore, of a "standstill," the work of preparation for the Congress of 1887 is progressing rapidly and successfully towards completion We have deemed it proper to make the foregoing statement to prevent misapprehensions, and for the general information of the medical profession at home and abroad

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY

Stated Meeting, March 15th, 1886

THE PRESIDENT, C T PARKES, M D, IN THE CHAIR

DR ROBERT H BABCOCK made remarks on

TWO CASES OF MITRAL STENOSIS, WITH PRESENTATION OF THE PATIENTS

DR BABCOCK said that he did not intend to give any discussion of mitral stenosis, but merely desired to present a few points of interest in connection with these patients Mitral obstruction is due to a fusing together of the valves so that they project into the ventricle in the form of a funnel, which, according to many authors, is the most frequent form of stenosis, according to others, the obstruction is due to a septum like valve stretching across the opening, and called the diaphragmatic valve Owing to the obstruction to the flow of blood from the auricle into the ventricle a murmur is produced which is rolling, or blubbering in character, and, occurring during the auricular systole and previous to the systole of the ventricle, is called pre-systolic or auriculo-systolic This murmur has been graphically represented by Balfour as in some cases resembling the sound of voot rrrb, the final t or b being the sudden, abrupt first sound produced by the ventricular systole

In some cases no pre-systolic murmur, correctly speaking, is heard, only a diastolic murmur which, being loudest at the apex in the mitral area, is a mitral diastolic murmur This murmur should be differentiated from the diastolic murmur of aortic regurgitation which, in certain rare cases described by Balthazar Foster, has its maximum of intensity in the mitral area and not at the centre of the sternum

In the two cases Dr Babcock presented the murmurs differed from each other in character, in the one case the murmur being very distinctly represented by the letters voot, in the other by rrrb The doctor was disappointed at the last moment by his inability to present a third patient, a man in whom the stenosis was indicated by a mitral diastolic murmur which followed an impure first sound of heart, and both the impure first sound and the diastolic murmur were in this case audible at the lower angle of the left scapula The propagation of the diastolic murmur so far to the left is very unusual, indeed, the production of the mitral diastolic murmur is itself very rare, and is probably due to the fact that a rush of blood from the left auricle to the ventricle occurs with greater force at the beginning of the ventricular diastole than during the auricular systole, the auricle being dilated rather than hypertrophied, according to Sansom The cases were then examined by members of the Society

DR E C DUDLEY reported a

UNIQUE CASE OF VESICO VAGINAL FISTULA,

in which the entire vesico vaginal septum, the vaginal portion of the cervix, and anterior wall of the cervix to the internal os had sloughed away, leaving no

since the methods in the different schools are essentially different He has thus placed himself in the anomalous position of recommending schools which, as he has shown, he considers objectionable But the truth is, there is no system of education which will educate in all directions He evades the question, which he asks, What shall a student, who desires a good education, study until he is capable of deciding what he should do in life? His statement, under this question, that educated men in all countries and for many centuries have presented and advocated a combined classical, scientific, and literary course of study as the very best that can be devised for young men who desire to enter the learned professions, is singularly inaccurate Three centuries are not *many*, and that is a liberal allowance for the age of our classical system In the statutes of the University of Paris of 1600 the studies in arts are defined as Latin, Greek, Aristotle's Philosophy, and Euclid Scientific and literary studies had no part or lot in the education of that period Inasmuch as our science of to day can scarcely be said to be one century old, it is manifestly absurd to say that it has been advocated for many centuries It is not less absurd to hold that the preliminary education for the medicine of one hundred years ago will fulfil the requirements of to day

It should be remembered that in speaking of the study of science we do not refer to getting lessons from text books, but to the study of it in the laboratory Canned science—that obtained from books—is not wholesome brain food It is unreasonable to talk of special schools for the preliminary study of a particular profession There is no need for them if instructors would study the pupils instead of making the pupils study them The single fact that the elementary principles of chemistry and physics are "taught" in the medical schools is conclusive proof that they are not properly taught in the academic schools On this subject we have already expressed our opinion in THE JOURNAL of May 2 and June 6, 1885 In this connection we take pleasure in referring to Dr A L Gihon's Presidential Address before the American Academy of Medicine (at the same meeting at which Dr Sibbet's paper was read), the more so because he plainly shows that he does not agree with some members of the Academy in thinking that a boy's mind must be matured on Latin, Greek, mathematics and canned science

Finally, it may not be amiss to compare Dr Sibbett's letter in this issue of THE JOURNAL with some of the statements in his first paper, as in this way we may more easily see how high a valuation he sets upon science and scientific schools in education "The acquisition of knowledge and mental discipline are therefore dependent upon certain conditions No one would think of dispensing with books, instructors and institutions" Books may be and often are dispensed with in teaching science The quotation can therefore refer only to *classical* education In the requirements for admission to medical colleges, he tells us, "classical studies are generally treated with indifference" We know that scientific studies are equally disregarded, why is not the fact mentioned? Again, "Shall we tell it in New York that the oldest university in America does not require a knowledge of the five declensions of Latin nouns for matriculation in her medical department?" That is certainly not so disgraceful as not requiring a knowledge of the elements of natural science "Another portion of our profession—possibly one fourth —have advanced as far in algebra as quadratic equations, and in geometry as the *pons asinorum* In Latin they have reached the Bucolics of Virgil, or the Jugurthine War by Sallust, and in Greek the third book of Xenophon's Anabasis Of rhetoric, logic, mental and moral philosophy they know nothing" From this it seems that he does not consider scientific principles as of any importance whatever Again, "But what shall we say of the remaining half of our profession? They have never even glanced at the academic studies referred to, and consequently they are without the mental discipline and training which these studies always bring The student must become an active agent, not merely a passive one He must work out problems in mathematics for himself, if he has not done so, he must translate foreign languages into good English, if he has not done so, he must prepare an original essay every week for four or five years, before he is properly prepared to study medicine" It seems absolutely useless to talk of scientific schools and scientific education until the papers from which these quotations are taken are retracted, and until this is done we beg to take leave of the subject

INTERNATIONAL MEDICAL CONGRESS OF 1887 PROGRESS OF ORGANIZATION

The statement in some recent medical journals to the effect that the progress of organization for the International Medical Congress of 1887 "seemed to have come to a standstill," is by no means correct, as the following facts will show

Soon after the final meeting of the General Committee on Organization appointed by the American Medical Association in September last, at which the said Committee adopted entirely satisfactory Rules

for the Congress, selected the general officers, and chief officers of the several Sections, thereby developing under their Rule Ten an independent Executive Committee of the Congress, authorized to take charge of the entire interests and further management of the organization, the said Executive Committee held a full meeting in November and organized for their work The President and Secretary General were instructed to issue a preliminary circular giving the general officers selected and the Executive Committee, together with the Rules in English, French, and German, and distribute the same both in Europe and America At the same meeting sub committees were appointed on all the more important items of unfinished business, to report at another meeting of the Executive Committee to be held in a few weeks from this time These sub committees have been quietly but diligently prosecuting their work so successfuly that at the next Executive Committee meeting there will be neither difficulty nor delay in filling all vacancies needed to make the preliminary organization of the Congress complete, and be ready to proceed directly with the preparation of the details for the final programme for the work of every department of the Congress The local committee of reception and arrangements at Washington, with Dr A Y P Garnett for Chairman, has increased its members to fifty, acting in harmony, and for more efficiency in execution, divided into seven sub committees, with each its allotted part of the work to be done

This is a guarantee that every possible arrangement will be made for the interests and comfort of those who may attend the Congress from any part of the world, and that active efforts will be made to secure the lowest rates of travel on ocean steamers and railroads for those coming from other countries, and in regard to which timely notice will be given With the aid of the Associate Secretary-General in New York the circulars anouncing the Preliminary Organization and Rules of the Congress were freely distributed in foreign countries, and its reception was immediately followed by cordial responses, which have continued to be received almost daily at the office of the Secretary-General from many of the countries of Europe, more especially from Great Britain, France, Germany and Austria, giving assurances of personal attendance, promising communications for certain Sections, and asking for further information Instead, therefore, of a "standstill," the work of preparation for the Congress of 1887 is progressing rapidly and successfully towards completion We have deemed it proper to make the foregoing statement to prevent misapprehensions, and for the general information of the medical profession at home and abroad

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, March 15th, 1886

THE PRESIDENT, C T PARKES, M D , IN THE CHAIR

DR ROBERT H BABCOCK made remarks on

TWO CASES OF MITRAL STENOSIS, WITH PRESENTATION OF THE PATIENTS

DR BABCOCK said that he did not intend to give any discussion of mitral stenosis, but merely desired to present a few points of interest in connection with these patients Mitral obstruction is due to a fusing together of the valves so that they project into the ventricle in the form of a funnel, which, according to many authors, is the most frequent form of stenosis, according to others, the obstruction is due to a septum like valve stretching across the opening, and called the diaphragmatic valve Owing to the obstruction to the flow of blood from the auricle into the ventricle a murmur is produced which is rolling, or blubbering in character, and, occurring during the auricular systole and previous to the systole of the ventricle, is called pre systolic or auriculo-systolic This murmur has been graphically represented by Balfour as in some cases resembling the sound of voot rrrb, the final t or b being the sudden, abrupt first sound produced by the ventricular systole

In some cases no pre-systolic murmur, correctly speaking, is heard, only a diastolic murmur which, being loudest at the apex in the mitral area, is a mitral diastolic murmur This murmur should be differentiated from the diastolic murmur of aortic regurgitation which, in certain rare cases described by Balthazar Foster, has its maximum of intensity in the mitral area and not at the centre of the sternum

In the two cases Dr Babcock presented the murmurs differed from each other in character, in the one case the murmur being very distinctly represented by the letters voot, in the other by rrrb The doctor was disappointed at the last moment by his inability to present a third patient, a man in whom the stenosis was indicated by a mitral diastolic murmur which followed an impure first sound of heart, and both the impure first sound and the diastolic murmur were in this case audible at the lower angle of the left scapula The propagation of the diastolic murmur so far to the left is very unusual, indeed, the production of the mitral diastolic murmur is itself very rare, and is probably due to the fact that a rush of blood from the left auricle to the ventricle occurs with greater force at the beginning of the ventricular diastole than during the auricular systole, the auricle being dilated rather than hypertrophied, according to Sansom The cases were then examined by members of the Society

DR E C DUDLEY reported a

UNIQUE CASE OF VESICO VAGINAL FISTULA,

in which the entire vesico vaginal septum, the vaginal portion of the cervix, and anterior wall of the cervix to the internal os had sloughed away, leaving no

since the methods in the different schools are essentially different. He has thus placed himself in the anomalous position of recommending schools which, as he has shown, he considers objectionable. But the truth is, there is no system of education which will educate in all directions. He evades the question, which he asks, What shall a student, who desires a good education, study until he is capable of deciding what he should do in life? His statement, under this question, that educated men in all countries and for many centuries have presented and advocated a combined classical, scientific, and literary course of study as the very best that can be devised for young men who desire to enter the learned professions, is singularly inaccurate. Three centuries are not *many*, and that is a liberal allowance for the age of our classical system. In the statutes of the University of Paris of 1600 the studies in arts are defined as Latin, Greek, Aristotle's Philosophy, and Euclid. Scientific and literary studies had no part or lot in the education of that period. Inasmuch as our science of to-day can scarcely be said to be one century old, it is manifestly absurd to say that it has been advocated for many centuries. It is not less absurd to hold that the preliminary education for the medicine of one hundred years ago will fulfil the requirements of to-day.

It should be remembered that in speaking of the study of science we do not refer to getting lessons from text books, but to the study of it in the laboratory. Canned science—that obtained from books—is not wholesome brain food. It is unreasonable to talk of special schools for the preliminary study of a particular profession. There is no need for them if instructors would study the pupils instead of making the pupils study them. The single fact that the elementary principles of chemistry and physics are "taught" in the medical schools is conclusive proof that they are not properly taught in the academic schools. On this subject we have already expressed our opinion in THE JOURNAL of May 2 and June 6, 1885. In this connection we take pleasure in referring to Dr. A. L. Gihon's Presidential Address before the American Academy of Medicine (at the same meeting at which Dr. Sibbet's paper was read), the more so because he plainly shows that he does not agree with some members of the Academy in thinking that a boy's mind must be matured on Latin, Greek, mathematics and canned science.

Finally, it may not be amiss to compare Dr. Sibbett's letter in this issue of THE JOURNAL with some of the statements in his first paper, as in this way we may more easily see how high a valuation he sets upon science and scientific schools in education. "The acquisition of knowledge and mental discipline are therefore dependent upon certain conditions. No one would think of dispensing with books, instructors and institutions." Books may be and often are dispensed with in teaching science. The quotation can therefore refer only to *classical* education. In the requirements for admission to medical colleges, he tells us, "classical studies are generally treated with indifference." We know that scientific studies are equally disregarded; why is not the fact mentioned? Again, "Shall we tell it in New York that the oldest university in America does not require a knowledge of the five declensions of Latin nouns for matriculation in her medical department?" That is certainly not so disgraceful as not requiring a knowledge of the elements of natural science. "Another portion of our profession—possibly one fourth—have advanced as far in algebra as quadratic equations, and in geometry as the *pons asinorum*. In Latin they have reached the Bucolics of Virgil, or the Jugurthine War by Sallust, and in Greek the third book of Xenophon's Anabasis. Of rhetoric, logic, mental and moral philosophy they know nothing." From this it seems that he does not consider scientific principles as of any importance whatever. Again, "But what shall we say of the remaining half of our profession? They have never even glanced at the academic studies referred to, and consequently they are without the mental discipline and training which these studies always bring. The student must become an active agent, not merely a passive one. He must work out problems in mathematics for himself, if he has not done so; he must translate foreign languages into good English, if he has not done so; he must prepare an original essay every week for four or five years, before he is properly prepared to study medicine." It seems absolutely useless to talk of scientific schools and scientific education until the papers from which these quotations are taken are retracted, and until this is done we beg to take leave of the subject.

INTERNATIONAL MEDICAL CONGRESS OF 1887.
PROGRESS OF ORGANIZATION.

The statement in some recent medical journals to the effect that the progress of organization for the International Medical Congress of 1887 "seemed to have come to a standstill," is by no means correct, as the following facts will show.

Soon after the final meeting of the General Committee on Organization appointed by the American Medical Association in September last, at which the said Committee adopted entirely satisfactory Rules

for the Congress, selected the general officers, and chief officers of the several Sections, thereby developing under their Rule Ten an independent Executive Committee of the Congress, authorized to take charge of the entire interests and further management of the organization, the said Executive Committee held a full meeting in November and organized for their work The President and Secretary-General were instructed to issue a preliminary circular giving the general officers selected and the Executive Committee, together with the Rules in English, French, and German, and distribute the same both in Europe and America At the same meeting sub committees were appointed on all the more important items of unfinished business, to report at another meeting of the Executive Committee to be held in a few weeks from this time These sub committees have been quietly but diligently prosecuting their work so successfuly that at the next Executive Committee meeting there will be neither difficulty nor delay in filling all vacancies needed to make the preliminary organization of the Congress complete, and be ready to proceed directly with the preparation of the details for the final programme for the work of every department of the Congress The local committee of reception and arrangements at Washington, with Dr A Y P Garnett for Chairman, has increased its members to fifty, acting in harmony, and for more efficiency in execution, divided into seven sub-committees, with each its allotted part of the work to be done

This is a guarantee that every possible arrangement will be made for the interests and comfort of those who may attend the Congress from any part of the world, and that active efforts will be made to secure the lowest rates of travel on ocean steamers and railroads for those coming from other countries, and in regard to which timely notice will be given With the aid of the Associate Secretary-General in New York the circulars anouncing the Preliminary Organization and Rules of the Congress were freely distributed in foreign countries, and its reception was immediately followed by cordial responses, which have continued to be received almost daily at the office of the Secretary-General from many of the countries of Europe, more especially from Great Britain, France, Germany and Austria, giving assurances of personal attendance, promising communications for certain Sections, and asking for further information Instead, therefore, of a "standstill," the work of preparation for the Congress of 1887 is progressing rapidly and successfully towards completion We have deemed it proper to make the foregoing statement to prevent misapprehensions, and for the general information of the medical profession at home and abroad

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY

Stated Meeting, March 15th, 1886

THE PRESIDENT, C T PARKES, M D , IN THE CHAIR

DR ROBERT H BABCOCK made remarks on

TWO CASES OF MITRAL STENOSIS, WITH PRESENTATION OF THE PATIENTS

DR BABCOCK said that he did not intend to give any discussion of mitral stenosis, but merely desired to present a few points of interest in connection with these patients Mitral obstruction is due to a fusing together of the valves so that they project into the ventricle in the form of a funnel, which, according to many authors, is the most frequent form of stenosis, according to others, the obstruction is due to a septum like valve stretching across the opening, and called the diaphragmatic valve Owing to the obstruction to the flow of blood from the auricle into the ventricle a murmur is produced which is rolling, or blubbering in character, and, occurring during the auricular systole and previous to the systole of the ventricle, is called pre systolic or auriculo-systolic This murmur has been graphically represented by Balfour as in some cases resembling the sound of voot rrrb, the final t or b being the sudden, abrupt first sound produced by the ventricular systole

In some cases no pre systolic murmur, correctly speaking, is heard, only a diastolic murmur which, being loudest at the apex in the mitral area, is a mitral diastolic murmur This murmur should be differentiated from the diastolic murmur of aortic regurgitation which, in certain rare cases described by Balthazar Foster, has its maximum of intensity in the mitral area and not at the centre of the sternum

In the two cases Dr Babcock presented the murmurs differed from each other in character, in the one case the murmur being very distinctly represented by the letters voot, in the other by rrrb The doctor was disappointed at the last moment by his inability to present a third patient, a man in whom the stenosis was indicated by a mitral diastolic murmur which followed an impure first sound of heart, and both the impure first sound and the diastolic murmur were in this case audible at the lower angle of the left scapula The propagation of the diastolic murmur so far to the left is very unusual, indeed, the production of the mitral diastolic murmur is itself very rare, and is probably due to the fact that a rush of blood from the left auricle to the ventricle occurs with greater force at the beginning of the ventricular diastole than during the auricular systole, the auricle being dilated rather than hypertrophied, according to Sansom The cases were then examined by members of the Society

DR E C DUDLEY reported a

UNIQUE CASE OF VESICO VAGINAL FISTULA,

in which the entire vesico vaginal septum, the vaginal portion of the cervix, and anterior wall of the cervix to the internal os had sloughed away, leaving no

bladder tissue between the inner extremities of the urethra and the points at which the vesico-uterine ligaments connect the bladder with the uterus. The only operation which seemed possible was to unite the posterior wall of the cervix uteri with the neck of the bladder. This would turn the uterus into the bladder and necessitate menstruation through the urethra. The anterior wall of the uterus could not be approximated to the neck of the bladder, but it was found, on further examination, that the mucous membrane of the bladder, if caught with the tenaculum about an inch in front of the uterus, could be drawn to the neck of the bladder and held without undue traction. The operator therefore undertook to close the fistula in this way by denuding a strip of the mucous membrane of the bladder from side to side an inch in front of the uterus, and thus he utilized that portion of the bladder between the line of denudation and the uterus, and made it a substitute for the lost anterior wall of the cervix and vesico-vaginal septum. Twenty-two silver wire sutures were employed after Sims's method. Union by first intention followed, notwithstanding the failure of the nurse the third day to keep the catheter *in situ*, which allowed several ounces of the urine to accumulate in the bladder. Notwithstanding the decrease in the size of the bladder necessitated by the operation, the patient experiences no difficulty in retaining the urine all night. The operator is not aware that another case of this kind has been previously reported.

THE PRESIDENT asked if it was not possible that some portion of the upper wall of the vagina was drawn upwards and backwards by the bladder, and what was taken to be a continuous wall of the bladder might be a part of the vagina. He had seen a case where there was a large laceration into the bladder, and the opening seemed one cavity with continuous walls, but the flap thrown backwards was post-vaginal, and it was found that this flap could be drawn up and into its position.

DR. L. C. DUDLEY, in answer to questions, said that the loss of tissue at the base of the bladder from sloughing differs from that by incision. In the latter case the ureters would perhaps be included in the excised tissue, but it is seldom that a slough of the base of the bladder in vesico-vaginal fistula, however extensive, destroys the connection between the bladder and kidneys. Even if the points through which the ureters penetrate the mucous coat of the bladder be lost, it is yet possible their openings into the bladder may be preserved, because the ureters penetrate the muscular coats nearly an inch from their normal points of opening through the mucous coats of the bladder, and run obliquely between the two coats for a distance of nearly an inch. In this case, as in many cases of loss of entire base of bladder reported by Emmet, the openings of the ureter were on either side at the very margins of the fistulous opening. The operation was performed at Morton, Ill., in the presence of Dr. Harris of that place, and Dr. Mansfield, of Metamora. Dr. Parkes's surmises with reference to the vaginal wall could hardly be correct because this, together with the anterior wall of the cervix uteri up to the internal os, had sloughed away. His surmise might be correct with reference to certain tissues between the bladder and cervix uteri which might have retracted and become adherent by inflammation, so as actually to form a portion of the bladder wall. Moreover, there is always a very decided difference in color and appearance between vaginal and bladder membrane, and the membrane in this case was to all appearance like that of the rest of the bladder, and to the touch gave the sensation of a thin wall. Dr. Baker, of Boston, reports a case similar to this in that he introduced sutures into the bladder tissue, but so close to the cervix uteri as not to draw down any portion of the interior of the bladder, to be used as material in place of the lost vaginal wall.

DR. W. L. AXFORD reported

A CASE OF REMOVAL OF THE ENTIRE LOWER JAW THROUGH THE MOUTH.

Harry T., aged 5. Admitted to St. Joseph's Orphan Asylum in November, 1885. It was noticed that his mouth was frequently swollen and sore. Child very much emaciated. In January, 1886, he had measles. Tedious convalescence followed. Came under observation about February 1. Weak and thin. Lower part of face very much swollen. Breath offensive. Symphysis of jaw bare. Could not examine further at this time. Pulse 120 to 130. Put the child on supporting treatment, hoping to get him in condition for an operation. No improvement at the end of two weeks. February 16 the patient was anæsthetized and the mouth explored. Found the jaw on either side stripped of its periosteum back to the masseters. Determined to attempt removal through the mouth, as any cutting operation involving the loss of much blood would have been fatal at once. Divided the jaw on either side of the symphysis with bone pliers and thus removed a large portion of the body. Seizing the remaining pieces with sequestrum forceps and making moderate traction, they were easily enucleated by the index finger of the left hand. Not more than a tablespoonful of blood was lost. Patient rallied well. Some reaction on second day. On third day the pulse had dropped to 116, and with exception of a swollen parotid on the left side the child was in better condition than before the operation, so much so that a recovery was confidently predicted. A severe attack of diarrhœa occurring on the morning of the fourth day was followed by death in thirty-six hours.

DR. ARNOLD P. GILMORE exhibited a patient on whom he had performed an operation for

SYMBLEPHARON OF THE LOWER LID,

due to a burn by molten iron, and in which three plastic operations had been unsuccessfully performed. Nine months previously the entire lower lid from external to internal canthus was adherent to the eyeball covering almost the entire cornea. This triangular-shaped tissue was covered by a pale membrane of cicatricial tissue. The operator first detached the lower lid and transplanted the conjunctiva of a rabbit. For six weeks the operation was apparently successful, but after an absence of two months from the city he found the lid was again becoming adherent. Six weeks previously Dr. Gilmore made a thorough dissection, freeing the lid and making a deep cul de sac, leaving the upper half of the eyeball covered by mucous membrane and the lower half bare. A semicircular band of conjunctiva, one third inch wide, close to the cornea above, leaving a bridge of tissue at each end. This band was dropped into the cul de sac below and carefully stitched to the ball. A semicircular plate of silver long enough to fill the space between the external and internal canthi, with two holes at the circumference, one half inch apart, threaded with silver wire, was dropped into the cul de sac to prevent adhesions, and fastened by bringing the wires through upon the face and fastening them by small lead plates and perforated shot. For this operation Dr. Gilmore claimed priority. The object of the operation was neither to improve the appearance of the eye nor to restore vision, but to relieve the irritation of the other eye, by allowing coordinate movements of the two eyes. There was enough clear cornea left to make an artificial pupil in case the patient ever lost his well eye. There was little reaction, and at no time much pus, while the well eye has grown stronger in spite of the presence of the plate.

Dr. Tilley thanked Dr. Gilmore for showing this case, but thought that if the Doctor were to go out of town again for two months as in the first instance, he would find at the expiration of that time the conditions relatively very much the same as on his return after the first operation. He thought there was little fundamental advantage likely to be associated with the operation, as he thought that in a short time the wire and plate would cause a certain amount of atrophy of the intervening tissue and the plate be forced up out of position, making the operation of no avail. If he was so unfortunate personally as to be placed in a similar position, he would have his eye enucleated.

Dr. E. L. Holmes thought it unwise to say that a certain thing could not possibly be accomplished, but he had been through the experience of putting in plates, and seeing it done, and never saw one permanently successful. It is different with a very narrow symblepharon in which the globe and eyelid are grown together, where by dissection and transplanting the mucous membrane excellent results may be attained. He thought the plate would irritate the cicatricial tissue and cause it to be very much thickened, and after a few months, or weeks even, when everything is removed, there will be the same tendency to creep over the cornea and make adhesions with a broad union. He thought it absolutely impossible to get an artificial eye to fit. A very small eye might be used and temporarily make it appear that the patient was better off, but that small eye will often irritate and cause the cicatrix to increase.

The President thought this case one of the same category that is so troublesome to the general surgeon, the improvement of deformities from cicatrices of all kinds, in which relief comes only in the way that Dr. Dudley has applied in gynecology, after the divided cicatrix has been separated as widely as possible, by drawing together the healthy skin or tissue between the two ends of the divided cicatrix. This method has long been in use in general surgery. So far as his experience went the application of any foreign body between these divided surfaces has never been followed by success, so far as prevention of contraction goes.

The President presented an

ENCAPSULATED SARCOMA OF THE THIGH.

It had been in alcohol for some time, and was reduced about one third in size. It had grown the full extent shown in three months, and was removed from an old lady aged 69. It was found growing upon the posterior part of the upper portion of the thigh, was a firm, smooth tumor to the touch, and as far as external manipulations determined could not be distinguished positively from other parts of the surrounding tissues. He could not determine whether it was or not attached to the bone, but from external appearances it was diagnosticated to be of a malignant type. The external surface was crossed by a large number of varicose veins. After removal it was shown to be a sarcoma. The interesting point was the rapidity of its growth. He thought it a singular coincidence that about a year previous he had removed a similar tumor from the upper portion of the left arm of an old man of 72 years, which had also grown to the full size in three months. Upon exposing the tumor a perfect capsule was reached, and it was easily enucleated from its bed.

GYNÆCOLOGICAL SOCIETY OF BOSTON.

Annual Meeting, January 14, 1886.

The President, Henry O. Marcy, M.D., in the Chair.

H. J. Harriman, M.D., Secretary.

The following

NEW MEMBERS

were elected: Drs. Helen L. Betts, Emily Pagelsen, Grace Wolcott, Lena V. Ingraham, N. O. B. Wingate, A. E. McDonald, and J. E. Kelley.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President, Dr. H. O. Marcy, Vice President, Dr. H. C. White, Secretary, Dr. H. J. Harriman, Treasurer, Dr. W. Symington Brown, Pathological Committee, Drs. E. W. Cushing, A. P. Weeks, and H. O. Marcy, Nominating Committee, Drs. H. M. Field, E. C. Keller, and C. W. Stevens.

Stated Meeting, February 11, 1886.

The President, Henry O. Marcy, M.D., in the Chair.

Dr. A. L. Norris read a paper on

CERTAIN PATHOLOGICAL CONDITIONS INCIDENT TO THE FŒTUS,

illustrated by a series of cases.

Case I.—Mrs. S., married, age 26 years. Mother of one child. Last menstruation, April 5, 1885.

Had no symptom of pregnancy except cessation of menses During previous pregnancy had suffered from nausea and vomiting Was examined August 1, 1885, and appeared to be about three months pregnant She did not think that she could be pregnant, but decided to wean her child, which was 13 months old She was examined again on Oct 22 Had appearance of being pregnant at four months No motion, no fœtal heart sounds Abdomen was not much larger than at August examination In the meantime she had been examined by other physicians, who thought a uterine or ovarian tumor to exist January 4, 1886, the abdomen seemed less in size than at October visit On January 6 she was delivered of a 4½ months fœtus which was mummified and enclosed in membranes Fœtus, membranes and placenta were extracted in one mass nine months from date of last menstruation The usual amount of hæmorrhage followed delivery No odor Convalescense normal

Case 2 was similar to case 1 A fœtus was carried five months without symptoms other than cessation of growth Cases 3 and 4 were cases of triplets In case 3 the mother had had eight single births previously One boy and two girls were born at a quick and normal labor Mother nursed the three children until they were several weeks old One girl and the the boy died when six weeks of age The other girl still lives and is in good health In case 4 a primapara was delivered of two healthy girls and a still born boy The fœtus of the boy was of three months development, and was mummified Both girls are alive and well

Case 5 was one of spontaneous amputation *in utero* of both arms at the shoulder During the last four months of gestation the mother suffered from intractable chronic diarrhœa and from vomiting Boy is still alive and well, and uses his toes with almost as much facility as other boys use their fingers

Dr H M Field, in discussing Case 1, asked Dr Norris if he regarded pregnancy as a bar to further nursing He called attention to a series of articles by Dr Dolan on the influence of drugs upon lactation, in which that writer takes exception to the popular opinion upon this point He found that the milk of pregnant women was not impoverished, and concluded from this fact that pregnancy was not a contra indication to further nursing in a majority of cases In France the laws forbid a pregnant woman's acting as wet nurse, upon the ground that the milk of such women is inferior both in quantity and quality, and thus the health of the nursing child is in danger

Dr Norris, in reply to Dr Field, said that in his opinion a pregnant woman should not nurse a child Abortion was likely to follow such a practice, and the health of the child was endangered Children nursed by pregnant women were invariably ill nourished, as proven by loss of color and flesh

Dr Warner took exception to Dr Norris's conclusions in regard to his first case Dr Warner thought it far more probable that the fœtus had continued to live up to the time of its expulsion, but through some vice of nutrition had ceased to grow, than that it had died during the early months of gestation and been retained until the ninth month

Dr A P Clarke described several cases which were similar to Dr Norris's first case

Case 1 —Mrs B, 38 years old, multipara Miscarried three times Menses regular until last August, when they disappeared She suspected she was pregnant, though no morning sickness or other usual symptoms of pregnancy appeared A fœtus was expelled and the placenta found to be fatty Amount of amniotic fluid was small Fœtus was buff colored, somewhat flattened, and measured seven inches in length

Case 2 —Mrs W, 36, multipara When first seen was suffering from severe uterine hæmorrhage Vaginal examination revealed a cyst presenting, which was ruptured by the examining finger A blighted fœtus, three inches long, which had undergone mummification, was removed Placenta had been attached until time of expulsion, and fresh hæmorrhage followed its removal Menses had been absent for eight months preceding the expulsion of the fœtus At first patient had suffered from morning sickness, but during last five or six months had had no such trouble The breasts had increased somewhat in size Patient had grown stouter, but abdomen had not increased in size during later months of gestation

Case 3 —Mrs W, 34, multipara Labor normal and female child born at term Child well developed On the removal of the placenta a flattened and mummified fœtus was expelled Was of a buff color, six inches in length, enclosed in membranes

In reply to Dr Warner, Dr Clarke said that mummification usually takes place in cases where the fœtus dies, the fluid elements of the body are reabsorbed, and the membranes are unruptured If, however, the membranes are ruptured and the air enters, putrefaction takes place

Dr E W Cushing said that there was nothing impossible about a fœtus being carried for months after its death, as claimed by Dr Norris There are cases on record which seem to prove it beyond a doubt

Dr M D Church described the case of Mrs M, who, at nearly full term, received a fright and fall in a horse car on March 26, 1883 Was delivered of a still born fœtus, twenty-two inches long and fully developed Funis was drawn tightly about the neck of the child twice The epidermis slipped on all parts of the body He raised the following questions 1st How long must a fœtus be dead *in utero* before the skin will slip? 2d Was the tight funis the cause of death? 3d *Was the fall in the horse-*car the cause of the tightening of the cord?

Dr Keller described the following case Mrs S, 35 Five children at term Miscarried five times on account of lacerated cervix The fifth time had been pregnant eleven weeks when she had "a profuse flow of blood with clots" She was carefully examined by a physician, who concluded that the uterus was empty The flow continued nine weeks when an ovum entire with fœtus 1½ inches long was expelled No odor The product of conception seemed perfectly healthy when cast off

Dr Helen Betts, in referring to the question of a woman nursing when pregnant, thought that few women were able to nurse a baby and carry a fœtus at the same time without injury either to themselves or to those in their charge In most cases it seemed wise to withdraw a part of the burden by directing that the child be weaned

The President, in commenting upon the specimen presented by Dr Norris, said it was one not only of exceptional interest, but represented a whole series of placental changes which, until recently, had been but little understood The late distinguished Professor G B Ercolani, of Bologna, rendered a service to the profession of incalculable value in his studies of placental development, and his demonstrations, after long and patient research in the large field of comparative as well as human anatomy, are of the first importance to science He shows conclusively that fœtal alimentation in all mammals is carried on by a single, universal law of physiological modality, that the fœtal villus is simply a means of absorption of nutritive material, which is, in all cases, furnished by a glandular, secretive organ of maternal development The expression of this anatomical type is of the widest variety, and in woman, in the fully developed placenta, reaches a complexity of form confusing in the highest degree The chorial villi, which during the earlier months of pregnancy are developed over the entire surface of the chorion, are composed of two parts, internal and external The first, which was called by Robin chorial tissue, and by Virchow mucous or myxoma, is in direct contact with the chorion, the latter, which consists of an epithelial envelope entirely surrounds it The villi, at the placental site, increase normally in number and volume Elsewhere, they are arrested in their growth and disappear by atrophy and fatty degeneration The decidua is, at first, a single bed of cells of new formation, and afterward proliferates to a remarkable degree at the placental site—the decidua serotina The epithelial covering of the placental villi is perceived same time after they have been enveloped by the cells of the serotina but disappear at an early period Not seldom, in case of so called mole pregnancy, the choroid villi, which should atrophy, increase in volume Under these conditions the external epithelium does not atrophy, but proliferates and has been mistaken for the internal surface of the epithelium furnished to the placental villi from the modified cells of the serotina At the later stages of pregnancy, the examination of any remaining choroid villi shows them still covered with an epithelial layer, while the placental villi have lost this envelope and are formed only of the fundamental myxomatous tissue which encloses the fœtal vessels, and thus the external parenchyma of the villi is in contact with the internal epithelium of the surrounding glandular organs

Pathological conditions, such as are represented in this specimen, where the fœtus has been for some time dead and the placenta has remained undisturbed in its attachments to the uterus, give confirmatory evidence of the truth of the demonstrations of Ercolani I have frequently observed, microscopically, the close contact of the choriol villi with the epithelial covering of the maternal vessels when the placenta has been undisturbed in connection with the uterus for a considerable period after the death of the fœtus The choriol villi have become shrunken, and are easily separated from the decidual sheath, the cells of which have undergone active proliferation In one instance this was observed to have taken place and continued in a stage of active development, in a portion of a placenta removed three months after the expulsion of the fœtus

Dr Marcy was glad to have the attention of the Society called to this class of specimens They are of interest from the practical side of observation and often involve danger to two lives The pathological committee of the Society will gladly investigate and report upon any specimens which may be forwarded to them

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, February 17, 1886

Vice-President, John B Hamilton, M D, in the Chair

T E McArdle, M D, Secretary

Dr C V Boarman read a paper on

JAUNDICE FOLLOWING CONCUSSION OF THE BRAIN

On December 30, 1885, I was called to see J B, age 30, married, a laborer at the Monument, who, whilst assisting at some mechanical work, lost his balance and fell a distance of thirty feet, striking upon his head, tearing the scalp from and exposing for several inches square the vertex of his skull, he also bruised and lacerated his forehead in several places His body and limbs were also bruised I found him at his home (to which he was brought in a carriage), in a sitting posture, apparently dazed, would answer questions in monosyllables after their repetition in a loud voice, was spitting blood and his nose bleeding

I washed the semi detached scalp in carbolized water and reapplied it in its proper place, holding it there by means of a stitch and adhesive plaster, ordered him to be put to bed at once and lotions applied to his face and other bruised parts About six hours after a messenger came to my office to ask for something to relieve Mr B's sick stomach, and also notified me that he had vomited about a pint of coagulated blood, and that there was still considerable retching and nausea I at first thought that the above might be caused by compression, but as I gave the injury a very thorough examination at the time I saw it and discovered nothing of the kind, I concluded that it was due partly to the concussion, and also the blood which had run down the œsophagus from the posterior nares, as there was considerable epistaxis I ordered ice, lime water and milk, also some ingluvin, and after a few hours bromide potass in solution, as there was considerable excitement, groaning and jactitation

December 31 Mr B was quietly resting upon

Had no symptom of pregnancy except cessation of menses During previous pregnancy had suffered from nausea and vomiting Was examined August 1, 1885, and appeared to be about three months pregnant She did not think that she could be pregnant, but decided to wean her child, which was 13 months old She was examined again on Oct 22 Had appearance of being pregnant at four months No motion, no fœtal heart sounds Abdomen was not much larger than at August examination In the meantime she had been examined by other physicians, who thought a uterine or ovarian tumor to exist January 4, 1886, the abdomen seemed less in size than at October visit On January 6 she was delivered of a 4½ months fœtus which was mummified and enclosed in membranes Fœtus, membranes and placenta were extracted in one mass nine months from date of last menstruation The usual amount of hæmorrhage followed delivery No odor Convalescense normal

Case 2 was similar to case 1 A fœtus was carried five months without symptoms other than cessation of growth Cases 3 and 4 were cases of triplets In case 3 the mother had had eight single births previously One boy and two girls were born at a quick and normal labor Mother nursed the three children until they were several weeks old One girl and the the boy died when six weeks of age The other girl still lives and is in good health In case 4 a primipara was delivered of two healthy girls and a still born boy The fœtus of the boy was of three months development, and was mummified Both girls are alive and well

Case 5 was one of spontaneous amputation *in utero* of both arms at the shoulder During the last four months of gestation the mother suffered from intractable chronic diarrhœa and from vomiting Boy is still alive and well, and uses his toes with almost as much facility as other boys use their fingers

Dr H M Field, in discussing Case 1, asked Dr Norris if he regarded pregnancy as a bar to further nursing He called attention to a series of articles by Dr Dolan on the influence of drugs upon lactation, in which that writer takes exception to the popular opinion upon this point He found that the milk of pregnant women was not impoverished, and concluded from this fact that pregnancy was not a contra indication to further nursing in a majority of cases In France the laws forbid a pregnant woman's acting as wet nurse, upon the ground that the milk of such women is inferior both in quantity and quality, and thus the health of the nursing child is in danger

Dr Norris, in reply to Dr Field, said that in his opinion a pregnant woman should not nurse a child Abortion was likely to follow such a practice, and the health of the child was endangered Children nursed by pregnant women were invariably ill nourished, as proven by loss of color and flesh

Dr Warner took exception to Dr Norris's conclusions in regard to his first case Dr Warner thought it far more probable that the fœtus had continued to live up to the time of its expulsion, but through some vice of nutrition had ceased to grow, than that it had died during the early months of gestation and been retained until the ninth month

Dr A P Clarke described several cases which were similar to Dr Norris's first case

Case 1 —Mrs B, 38 years old, multipara Mis carried three times Menses regular until last August, wher they disappeared She suspected she was pregnant, though no morning sickness or other usual symptoms of pregnancy appeared A fœtus was expelled and the placenta found to be fatty Amount of amniotic fluid was small Fœtus was buff colored, somewhat flattened, and measured seven inches in length

Case 2 —Mrs W, 36, multipara When first seen was suffering from severe uterine hæmorrhage Vaginal examination revealed a cyst presenting, which was ruptured by the examining finger A blighted fœtus, three inches long, which had undergone mummification, was removed Placenta had been attached until time of expulsion, and fresh hæmorrhage followed its removal Menses had been absent for eight months preceding the expulsion of the fœtus At first patient had suffered from morning sickness, but during last five or six months had had no such trouble The breasts had increased somewhat in size Patient had grown stouter, but abdomen had not increased in size during later months of gestation

Case 3 —Mrs W, 34, multipara Labor normal and female child born at term Child well developed On the removal of the placenta a flattened and mummified fœtus was expelled Was of a buff-color, six inches in length, enclosed in membranes

In reply to Dr Warner, Dr Clarke said that mummification usually takes place in cases where the fœtus dies, the fluid elements of the body are reabsorbed, and the membranes are unruptured If, however, the membranes are ruptured and the air enters, putrefaction takes place

Dr E W Cushing said that there was nothing impossible about a fœtus being carried for months after its death, as claimed by Dr Norris There are cases on record which seem to prove it beyond a doubt

Dr M D Church described the case of Mrs M, who, at nearly full term, received a fright and fall in a horse car on March 26, 1883 Was delivered of a still born fœtus, twenty-two inches long and fully developed Funis was drawn tightly about the neck of the child twice The epidermis slipped on all parts of the body He raised the following questions 1st How long must a fœtus be dead *in utero* before the skin will slip? 2d Was the tight funis the cause of death? 3d Was the fall in the horse car the cause of the tightening of the cord?

Dr Keller described the following case Mrs S, 35 Five children at term Miscarried five times on account of lacerated cervix The fifth time had been pregnant eleven weeks when she had "a profuse flow of blood with clots" She was carefully examined by a physician, who concluded that the uterus was empty The flow continued nine weeks when an ovum entire with fœtus 1½ inches long was expelled No odor The product of conception seemed perfectly healthy when cast off

Dr Helen Betts, in referring to the question of a woman nursing when pregnant, thought that few women were able to nurse a baby and carry a fœtus at the same time without injury either to themselves or to those in their charge In most cases it seemed wise to withdraw a part of the burden by directing that the child be weaned

The President, in commenting upon the specimen presented by Dr Norris, said it was one not only of exceptional interest, but represented a whole series of placental changes which, until recently, had been but little understood The late distinguished Professor G B Ercolani, of Bologna, rendered a service to the profession of incalculable value in his studies of placental development, and his demonstrations, after long and patient research in the large field of comparative as well as human anatomy, are of the first importance to science He shows conclusively that fœtal alimentation in all mammals is carried on by a single, universal law of physiological modality, that the fœtal villus is simply a means of absorption of nutritive material, which is, in all cases, furnished by a glandular, secretive organ of maternal development The expression of this anatomical type is of the widest variety, and in woman, in the fully developed placenta, reaches a complexity of form confusing in the highest degree The chorial villi, which during the earlier months of pregnancy are developed over the entire surface of the chorion, are composed of two parts, internal and external The first, which was called by Robin chorial tissue, and by Virchow mucous or myxoma, is in direct contact with the chorion, the latter, which consists of an epithelial envelope, entirely surrounds it The villi, at the placental site, increase normally in number and volume Elsewhere, they are arrested in their growth and disappear by atrophy and fatty degeneration The decidua is, at first, a single bed of cells of new formation, and afterward proliferates to a remarkable degree at the placental site—the decidua serotina The epithelial covering of the placental villi is perceived same time after they have been enveloped by the cells of the serotina but disappear at an early period Not seldom, in case of so called mole pregnancy, the choroid villi, which should atrophy, increase in volume Under these conditions the external epithelium does not atrophy, but proliferates and has been mistaken for the internal surface of the epithelium furnished to the placental villi from the modified cells of the serotina At the later stages of pregnancy, the examination of any remaining choroid villi shows them still covered with an epithelial layer, while the placental villi have lost this envelope and are formed only of the fundamental myxomatous tissue which encloses the fœtal vessels, and thus the external parenchyma of the villi is in contact with the internal epithelium of the surrounding glandular organs

Pathological conditions, such as are represented in this specimen, where the fœtus has been for some time dead and the placenta has remained undisturbed in its attachments to the uterus, give confirmatory evidence of the truth of the demonstrations of Ercolani I have frequently observed, microscopically, the close contact of the chorial villi with the epithelial covering of the maternal vessels when the placenta has been undisturbed in connection with the uterus for a considerable period after the death of the fœtus The chorial villi have become shrunken, and are easily separated from the decidual sheath, the cells of which have undergone active proliferation In one instance this was observed to have taken place and continued in a stage of active development, in a portion of a placenta removed three months after the expulsion of the fœtus

Dr Marcy was glad to have the attention of the Society called to this class of specimens They are of interest from the practical side of observation and often involve danger to two lives The pathological committee of the Society will gladly investigate and report upon any specimens which may be forwarded to them

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, February 17, 1886

Vice President, John B Hamilton, M D , in the Chair

T E McArdle, M D , Secretary

Dr C V Boarman read a paper on

JAUNDICE FOLLOWING CONCUSSION OF THE BRAIN

On December 30, 1885, I was called to see J B , age 30, married, a laborer at the Monument, who, whilst assisting at some mechanical work, lost his balance and fell a distance of thirty feet, striking upon his head, tearing the scalp from and exposing for several inches square the vertex of his skull, he also bruised and lacerated his forehead in several places His body and limbs were also bruised I found him at his home (to which he was brought in a carriage), in a sitting posture, apparently dazed, would answer questions in monosyllables after their repetition in a loud voice, was spitting blood and his nose bleeding

I washed the semi detached scalp in carbolized water and reapplied it in its proper place, holding it there by means of a stitch and adhesive plaster, ordered him to be put to bed at once and lotions applied to his face and other bruised parts About six hours after a messenger came to my office to ask for something to relieve Mr B 's sick stomach, and also notified me that he had vomited about a pint of coagulated blood, and that there was still considerable retching and nausea I at first thought that the above might be caused by compression, but as I gave the injury a very thorough examination at the time I saw it and discovered nothing of the kind, I concluded that it was due partly to the concussion, and also the blood which had run down the œsophagus from the posterior nares, as there was considerable epistaxis I ordered ice, lime water and milk, also some ingluvin, and after a few hours bromide potass in solution, as there was considerable excitement, groaning and jactitation

December 31 Mr B was quietly resting upon his back in bed upon my arrival, perfectly conscious, no headache or sick stomach, but still spitting up blood He stated that after vomiting copiously the night before, he felt much better, became perfectly conscious and passed a good night The vomiting was no doubt as much dependent upon the blood which had run down his œsophagus as upon the concussion of the brain I examined his wounds and found them doing well, very little suppuration, the scalp wound inclined to unite The entire head, face, and even the neck was very much swollen, looked like it was puffed up with air, but no redness or tenderness, in fact, no positive symptom of erysipelas His sclerotics were congested and effused, the surrounding parts black from bruises He complained very much of soreness about his knees and shoulders, which were no doubt struck by projecting beams during his descent

January 1 Upon visiting Mr B , to my astonishment I found him intensely jaundiced, his sclerotics stained, urine loaded with bile pigment, and all other symptoms indicative of icterus I never saw a person more changed in appearance, being in health a very tall, thin man, his features sharp and cheek bones prominent, his present condition was such that he was hardly recognizable, as his face was terribly swollen and as yellow as saffron, the bruises and lacerations of course adding to the above abnormal appearance I removed the stitch from the scalp wound, which had united by first intention His other injuries notwithstanding his jaundiced condition, were doing well, he was still spitting up some blood, but not enough to cause any alarm I ordered a mercurial purgative, after the action of which I placed him upon nit muriatic acid dilut , at the same time, of course, regulating his diet, forbidding the fats, oils, etc The purgative acted well, bringing away a large amount of black grumous matter, no doubt partially digested blood and fæces He felt considerably relieved after his bowels acted, and left the bed

January 3 His condition was very much improved, the jaundice rapidly disappearing, and the swollen and bruised parts resuming their normal condition I did not see Mr B again until January 5, which was my last visit, as the jaundice had disappeared, and his various injuries were doing well, he was up and anxious to resume his work

I look upon the above case as rare, as in the majority of cases the physician is able to trace the disease to obstructions either existing in the intestinal canal or common duct, whereas in the above the solution of the difficulty is hard, unless we accept the theory advanced by Murchison, that concussion of the brain produces jaundice by interfering with or deranging the normal metamorphosis of bile by nervous influences Virchow mentions a form as hæmatogenic, that is, formed in the blood or taking its origin there Ponfick assigns as a cause violent mental conditions, *as for instance anger etc Murchison speaks of the* case of a soldier who became jaundiced because he was restrained from wreaking his vengeance on a comrade who had angered him

M Rendu records the case of a woman aged 25 years, convalescent from puerperal peritonitis, who became jaundiced within three hours after an unsuccessful attempt to catheterize the bladder, the skin remained yellow for four days and the urine contained bile pigment one day longer Its sudden onset and rapid disappearance are in favor of its being of neurotic origin Another case of interest having a remote origin or cause is mentioned by Dr Boucher in the *London Lancet*, July, 1884 A child aged 2 years sat down in a pail of hot water in which there was dissolved a quantity of soda The scalding was confined to the nates, on which there were two large blisters, they were treated by the usual methods On the tenth day after, there was abdominal tenderness with pain, high temperature and diarrhœa, the urine contained bile pigment, sclerotics and skin stained, in a word, a well marked case of jaundice It lasted three or four days, and then subsided This case was no doubt owing to inflammation extending to the mucous membrane of the common duct, causing an obstruction to the outward flow of bile, which in turn was followed by jaundice

It is frequently very difficult to assign a cause for jaundice, as its appearance at times is so eccentric, for instance, the jaundice of pyæmia, and those forms of the disease resulting from the narcotism of chloroform, and other forms of intoxication It also occasionally complicates pneumonitis I think the case just reported by me was due to neurotic influences, as its appearance and disappearance were so sudden Besides, I examined his urine by the usual methods, and failed to find the biliary acid, which, according to Dr G Harley, is proof that no obstruction existed, as he adopted the theory which had been advanced, "that the liver manufactures the bile acids, while it merely excretes the bile-pigment "

Dr A Y P Garnett said that jaundice is often due to traumatism Although he had no personal experience with the disease resulting from such a cause, yet the journals frequently contain reports of similar cases Nervous influences operate in a great variety of ways Some women suffer from jaundice during the period of the menses Some reflex irritation traceable to the uterus or ovaries produces an icteroid condition which disappears with the cessation of the menstrual flow We know that the presence of the infant seeking nourishment will produce an increase of maternal milk The appearance of food causes a secretion of saliva Not only quantitative but qualitative effects follow mental emotions Passion has a deleterious influence on normal secretions Fear had turned turned hair gray almost instantaneously Dr Garnett also spoke of jaundice following the bite of serpents

Dr J Ford Thompson had no experience with jaundice as a sequence of concussion of the brain He had seen icterus follow injuries about the skull, and he had seen the yellow discoloration of pyæmia and septicæmia, but he did not consider this condition pathological jaundice It is different from a jaundice caused by an impediment to the excretory ducts or by a catarrhal condition In such cases there would be an absorption of bile after its manufacture by the liver When we get to explaining things by nervous shock we do not get much satisfaction

Dr Boarman contended that jaundice may be a symptom of nervous derangement In this case he found bile pigments and biliary salts in the urine It looks, of course, as if an obstruction existed The patient had headache and nausea, both symptomatic of jaundice There was at no time even a suspicion of pyæmia or septicæmia The pulse was slow, but that condition is common in jaundice Murchison says that nervous influences can and do produce jaundice

Dr Garnett said that the metabolic activity of the hepatic cells in the production of bile is in direct proportion to the plus or minus degree of blood pressure in the liver Any agent or cause disturbing the normal physiological equilibrium of blood pressure in that organ directly affects the secretion of bile It has been shown that a section of the splanchnic nerves causes immediate dilatation of the hepatic veins, followed by a diminution of arterial blood pressure and increased flow of blood into the portal veins It is easy then to conceive how readily causes disturbing the normal functions of the nerves supplying the liver, and especially the great sympathetic, whose filaments supply the vaso motors of the hepatic arteries, may affect the secretion and diffusion of bile

Dr Boarman said that Budd concurred in Boerhaave's and Morgagni's idea, with the exception that no bile acid was found in the blood of the portal vein Prof Freidrich states that bile acid taken from the liver by blood of hepatic vein, and also absorbed from bowel, etc, undergoes in the blood a change Bile acids converted by oxidation, a normal metamorphosis, into taurin, are found in healthy lungs, and taurin and pigment are voided in the urine

Dr A F A King inquired whether the body was examined all over? If the discoloration was general? If there was bile in the stools? He thought the discoloration resulted probably from bruising He said that it was important to determine whether a yellow coloration of the surfaces is really due to the principle of the bile, and mentioned the true jaundice of the new born, and its spurious counterpart

Dr Boarman had examined the body generally but not the abdomen The urine, he repeated, contained the biliary salts, the fæces were scanty, and the color of dog's dung

Dr H D Fry asked on what symptoms the diagnosis of concussion of the brain were based?

Dr Boarman repeated the symptoms mentioned in his paper

Dr Fry thought it was important to have examined the abdomen for possible injury

Dr Boarman said that he had mentioned such a possibility in his paper

Dr J B Hamilton said it seemed the literature had been hastily treated The autopsies made by Valsalva had not shown any intimate relation between concussion of the brain and hepatic abscess Chelius says liver abscess and jaundice are common as late symptoms Ballingall, Guthrie and Gross also mention it Dr Hamilton thinks the only explanation of its production has been that it is due to an irritation of the floor of the fourth ventricle and by the pneumogastric nucleus He agrees with Dr Boarman that it is a rare but long recognized condition Duret's examination showed extravasation in the fourth ventricle in a great many cases of concussion

Dr King could not see the connection between a jaundice resulting from old liver disease, as abscess, and the acute symptoms described in the paper

Dr Hamilton spoke in general terms, and in reply to Dr Boarman said he thought that nervous jaundice, like diabetes mellitus, might be produced by compression in the fourth ventricle due to extravasation

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

The Bellevue Commencement—The Funeral of Dr Flint—The Death of Dr S O Vanderpoel—The University Commencement

The commencement of the Bellevue School, which came off on the evening of March 15, was the saddest that this, or probably any other medical college, ever had The week before had been buried the accomplished and popular young Demonstrator of Anatomy, Gaspar Griswold, and at the time of its occurrence the mortal remains of the immortal teacher and writer, Austin Flint, lay in their coffin awaiting the funeral services of the morrow Under the circumstances the exercises were naturally of a memorial character, instead of the festal nature usual on such occasions They were entirely private, being held in the lecture room of the Carnegie Laboratory, connected with the college, instead of some such place of amusement as the Metropolitan Opera House or the Academy of Music, and the building was elaborately and tastefully draped in the emblems of mourning It was indeed a most affecting event In his remarks to the graduating class, which numbered 140, the President, Dr Isaac E Taylor, spoke in feeling terms of the great bereavement of the college and the profession, and the eminent physiologist, Dr John C Dalton, now President of the College of Physicians and Surgeons, paid a most touching and eloquent tribute to the dead Professor

The funeral services, which were held Tuesday, March 16, at Christ Church, of which Dr Flint was a member, were of the greatest possible simplicity, and there were no pall bearers The church was completely filled with the Faculties and students of Bellevue and the other medical schools, representatives of the New York County Medical Association, the County Society and the Academy of Medicine, and citizens generally, and among those present were many distinguished men of other callings, as well as a number of well known physicians from other cities At the head of the coffin, beside which stood, during the whole service, the faithful negro servant of Dr Flint, was a large and beautiful broken column, rising from a floral base, which was the offering of the

County Medical Association, and afterwards the flowers composing it were distributed amongst the patients in the medical wards of Bellevue Hospital, which the deceased had attended so long and faithfully and with signal benefit to the profession and suffering humanity

It was before the County Association, which was a society especially cherished by Dr Flint, that he read his last paper in public, that on "The Elements of Prognosis in Bright's Disease," which was published in THE JOURNAL of January 9 last On Sunday, the day following his death, a special meeting of the Executive Committee of the Association was held at the house of the President, Dr Leale when the memorial which has already been published was adopted, and it was determined that the next meeting of the Society, which will occur April 19, should be exclusively devoted to commemoration exercises in his honor It is expected that several of his friends and former colleagues in the different cities where he resided and won for himself not only distinction, but the sincere esteem and friendship of all his professional brethren, will be present on that occasion to render their tributes to his memory At a meeting of the Commissioners of Charities and Corrections which was held on the following day, resolutions of sympathy were also adopted, in which special attention was called to the fact that Dr Flint had been connected with the Department as visiting physician to the hospitals for twenty five years His loss is indeed an irreparable one

On the day preceding Dr Flint's death occurred that of another of the most distinguished physicians in the city and State, Dr S Oakley Vanderpoel It will thus be seen that death has of late been very busy among the eminent men of the profession here, within a few short weeks no less than four having been called away from their labors, Drs Post, Griswold, Vanderpoel and Flint While Drs Flint and Griswold were connected with the Bellevue school, Drs Post and Vanderpoel belonged to the University, the former being Emeritus Professor of Surgery and President of the Medical Faculty, and the latter Professor of Public Hygiene

The forty-fifth annual Commencement of the University Medical School was held at the Academy of Music on the 6th of March, when the degree of M D was conferred on 173 graduates The class were fortunate in having to address them the Hon Wayne MacVeagh, of Pennsylvania, who is everywhere known as one of the most attractive speakers in the country In the course of his remarks he said "If I were called upon to indicate as marvellous a change as any that has come over the knowledge of men in my time, I would say that it was the difference between the well educated and well equipped physician when I was born, and the man of the same relative rank and acquirements in his profession to day In almost every department of medical and surgical knowledge advancement has been made which has substantially revolutionized the art of healing and alleviating the diseases of men, and of prolonging human life" Later on he remarked "And charity is the crowning glory of your profession I have known a distinguished surgeon to leave the bedside of a sick President and make an exhausting journey in order to relieve the sufferings of an unfortunate person whose only possible means of recompense was gratitude"

P B P

ACADEMIC STUDIES IN RELATION TO MEDICINE

TO THE EDITOR OF THE JOURNAL

Dear Sir —In this communication I propose to use the words "academic studies" in a general sense, as we may have occasion to use the words medical studies in a similar sense By the former we understand those studies which are pursued in our common schools, high schools, military and naval schools, normal schools, academies, classical, scientific and literary schools, usually known as colleges How many of these studies should be taken up by the student prior to the study of medicine, and how much time should be spent upon each of them, are questions which can only be answered by educated men of large experience Those who have never faithfully pursued the study of mathematics, or languages, or the natural sciences, for a series of years, are not in a position to judge of their relative value as so many means of mental discipline or education Hence, they have no right to express an opinion on the subject, any more than a non medical man has a right to express an opinion in a case of pneumonia or syphilis Other questions which imply a partial or a total exclusion of these or other branches of study from the curriculum of an academic course must be answered by the same kind of authority Any new theory of preliminary education, advocated by a single profession or by a few men in a profession is scarcely worthy of serious consideration The older methods may be somewhat modified to suit the age in which we live, but we are not moving so rapidly than we can afford to abandon the experience of our fathers in any department of activity, much less in the slow processes of educating the human mind

If any one should ask where an expression of sentiment on the points mentioned or referred to may be found, we would say, that the statute books of all civilized nations (our own country being the exception) contain statements which cannot be misunderstood The minimum requirements for matriculation in the theological, law, and medical schools of all European countries, the Canadian provinces, the South American States, and Mexico, consist in knowledge of the higher mathematics, at least three languages, belles lettres, mental and moral philosophy and the natural sciences Higher attainments are encouraged, and other studies are often pursued which are not required by law The medical profession in the United States, whatever may be said to the contrary, cannot afford to occupy a lower plane than that of the profession in other great nations In the direction of mechanical inventions we may have surpassed others, being stimulated by our potent laws, but this is no evidence that we can invent a better method of educating professional men

The limited space at my disposal requires me to be brief, and therefore I will confine myself to two or three additional paragraphs

1 Our profession has thus far been under the necessity of making use of such academic institutions as the people of our numerous States have provided, and as far as it is possible for us to foresee, we will always be under the same necessity We may, as a profession, control, in some measure at least, our medical schools, because there is no other class of citizens specially interested in them Our military and naval schools, schools of design, normal schools and agricultural schools may also be regulated to suit the limited number of students who apply for admission, but no simple profession is likely to gain so great an ascendency in our country as to control the curricula of our numerous classical, scientific and literary institutions, about 300 in all, or to dictate what branches should be introduced and what excluded The fact is, that in nearly all of them, the student has the choice of two or three courses of study, and there seems to be very little more needed to make them complete The religious denominations which have very generally supervision over them have very generously provided elective courses of study for those who do not desire to study theology, and many whose sons propose to study law insist, that they shall continue all through the junior and senior years, in the course in arts which they believe to be the best suited for mental discipline A respectable number, though certainly not so large, enter upon the study of medicine with the degree of bachelor of arts To suppose that the medical profession, in the United States which has ignored every standard, academic and medical, would support special schools with a fixed and limited curriculum is folly, and we do not hesitate to say it Those who have energy to spare may waste it on such an issue, but we could not encourage them to do so People generally place their sons in the care of those whose religious sentiments are in harmony with their own, if they cannot find a school in the neighborhood I have now answered the question, *Where* should a student who desires a good education, prepare for the study of medicine? and I proceed to answer with equal brevity, another question not less important

2 *What* shall a student, who desires a good education study until he is capable of deciding what he should do in life? This is not only an important question for every student to solve, but one which the faculties and trustees of our higher educational institutions are required to consider in all its bearings For the parent to decide what shall be the life work of his son before he has reached his majority would be as unwise as to give him full possession of his inheritence during his minority, and any system of education which would require the son to make so important a decision while yet in his minority, is false We have all seen the minister in the pulpit, the attorney at the bar, and the medical doctor make a failure of life, and we have said, they have mistaken their calling It is not sufficient to have merely an education—that is, a knowledge of angles and circles, Greek and Latin verbs, syllogisms and the laws of chemistry and biology The student must have a natural fitness for his calling A life work must have some charm about it, to compensate for the annoyances incident to professional work, or disappointment and failure will result It is plain that the student is not in a position to make so important a decision until he has reached his twentieth or twenty-first year, and even then he may make a fearful blunder, nor is the parent able to assist him For the pulpit and the bar he should be an easy writer and a fluent speaker, he should have a clear voice and a pleasant address For a successful study and practice of medicine, he should have a decided inclination in the direction of the natural sciences, especially biology combined with patience, self possession and sympathy for mankind A protracted course of academic study gives the student an opportunity to study himself He will find, especially in the combined classical, scientific and literary course, opportunities to test his fitness for a place in the learned professions which he will not find in any other In this course he is left entirely free, to study his mental capabilities and pecularities, and the indications of Providence With these advantages, if he has chosen medicine, he will make more progress in one year than others will in two or three years, and he will not be constantly goaded with the thought that he is entirely ignorant of many branches of study which adorn the educated world These and similar considerations have induced educated men in all civilized countries and for many centuries to present and advocate a combined classical, scientific, and literary course of study as the very best that can be devised for young men who desire to enter the learned professions

In conclusion, allow me to say that it ill becomes the medical profession in our country to complain of our higher literary institutions, much less does it become us to speak of them in a disrespectful manner In most of these schools instruction is gratis, or nearly so, besides it is entirely optional with the student whether he pursues one course of instruction or another When our medical schools command as much respect as our academic institutions, they also will be liberally endowed A high standard and an honorable policy will alone secure the confidence of those who have money to spare R. LOWRY SIBBET, M D

Carlisle, Pa , March 7

NECROLOGY

AUSTIN FLINT, SR , M D , LL D

Died at his residence in New York, on Saturday, March 13, AUSTIN FLINT, SR , of cerebral apoplexy He was stricken about midnight on Friday Two or three weeks before he was called to Tarrytown to an important consultation, and on returning to the city found a pressure of business among his own patients He was very much exhausted when the hour for a lecture at Bellevue arrived, but insisted on delivering it even while complaining of the burden he felt it For several days after this strain his friends noticed that he seemed depressed and nervous, but he soon recovered his wanted energy, which was marvellous for a man of his years The last lecture for the term a few days ago was an hour long, and he followed it with a quizzing exercise which would have done credit to a professor of 40 He attended the examinations which were concluded on Friday, went to the Faculty meeting on Friday night, which lasted till a late hour, and was driven home apparently in the best of health and spirits Very soon after reaching his home he was taken ill Dr E G Janeway was called in immediately, and seeing the nature of the attack sent for Dr Austin Flint, Jr Drs Isaac E Taylor and Wm T Lusk were called in consultation on Saturday, but the patient sank slowly, and died at 2 o'clock

Dr Flint was born in Petersham, Mass , on October 20, 1812, and was therefore in the seventy-fourth year of his age He came of a family that had made a name in medicine in Massachusetts since the early settlement of New England Thomas Flint, of Matlock, Derbyshire, England, the ancestor of Dr Austin Flint, settled in Concord in 1638 Edward Flint, the great grandfather of Dr Flint, was a physician of reputation in the Massachusetts Colony in the early part of the last century, and his grandfather, Dr Austin Flint, practised medicine in Leicester, Mass , until past the age of 90, dying in 1850 He laid aside his profession temporarily to enter the Revolutionary Army, but his services were soon needed as a surgeon Dr Flint's father, Joseph Henshaw Flint, was also a surgeon of reputation in Northampton and afterwards at Springfield Dr Flint pursued his academic studies at Amherst and Cambridge for three years, when he entered the medical department of Harvard College, and received the degree of M D , in 1833 The first three years of his professional life were passed in Northampton and Boston, when he removed to Buffalo, N Y , in 1836 He had already brought himself into prominence in the profession by his success as a practitioner and writer In 1844 he was appointed to the chair of Institutes and Practice of Medicine in the Rush Medical College of Chicago, though still retaining his residence in Buffalo This position he resigned at the end of a year In 1846, he founded the *Buffalo Medical Journal*, and for ten years edited it with marked ability and signal success His contributions to this periodical attracted attention on account of their unusual worth Among the physicians practising in Buffalo at this time were Dr James P White and Frank H Hamilton With these, in 1847, Dr Flint organized the Buffalo Medical College, which has also numbered among its professors, Drs John C Dalton and Sanford P Hunt In this institution Dr Flint was Professor of the Principles and Practice of Medicine and of Clinical Medicine until 1852, in which year he was called to the Chair of Theory and Practice of Medicine in the University of Louisville Here he remained until 1856, when he returned to Buffalo to take the Chair of Pathology and Clinical Medicine in the College which he had been instrumental in founding In 1858 he went to New Orleans to teach Clinical Medicine, where he was also visiting physician to the Charity Hospital He held these positions during the winters of 1858–1861, when he removed to New York to take the Chair of the Principles and Practice of Medicine and Clinical Medicine in Bellevue Hospital Medical College, and that of Pathology and Practical Medicine in the Long Island College Hospital to which he had been previously elected He was also appointed one of the physicians to Bellevue Hospital He relinquished the professorship in the Long Island College Hospital in 1868

Dr Flint went to New York distinguished as a practitioner, a teacher and an author Besides his other published writings he had presented two essays to the American Medical Association on "The Variations of Pitch in Percussion and Respiratory Sounds" (1852), and "The Clinical Study of the Heart Sounds in Health and Disease," (1859), for which he received the first prizes of the Association

When the National Medical Convention met in New York City on May 5, 1846, Dr Flint registered as a delegate from the Buffalo Medical Association, the other delegate being Dr Bryant Burwell This National Medical Convention, it will be remembered, was the initiatory step towards the formation of the American Medical Association Dr Flint was one of the seventy-four who voted against a resolution, offered on behalf of the New York State Medical Society, setting forth that there was no mode of accomplishing the object of the Convention, and suggesting that it adjourn *sine die* At this meeting he was appointed on a committee to report on a resolution, offered by the late Dr Isaac Hays, for a uniform and elevated standard of requirements for the degree of M D in all the medical schools of the United States The report of this committee, made in Philadelphia in 1847, at the second meeting of the Convention, is today a most interesting, applicable and valuable document

Soon after this meeting of the Convention Dr Flint, as already stated, helped to found the *Buffalo* Medical College, and seeing the difficulties under which medical schools labored in regard to subjects for practical anatomy, he introduced a resolution at the meeting in Philadelphia recommending that the medical profession of the different States unite in bringing their influence to bear on the legislatures to pass laws sanctioning and providing for dissection At this meeting also he was placed on the Committee on Medical Literature for the next year, Dr Oliver Wendell Holmes being Chairman of the Committee By this time he was already known favorably as a writer In 1849 he brought out an able article on the pathology of typhoid fever, giving an exact account of the intestinal lesions In an article on diabetes, published in his *Buffalo Medical Journal*, in July, 1848, he had confirmed the opinion expressed by Todd, of England, in the *Provincial Medical Journal*, three months before, as to the pathology of this affection "The presence of sugar in the blood and various secretions other than the urine render it inappropriate longer to rank diabetes among renal diseases" At the meeting of the *American Medical Association* in Cincinnati in 1850, for this name had been chosen at the Baltimore meeting of the National Convention, he was made Chairman of the Section of Practical Medicine, and the report on this subject shows how well he performed his work By this time several able papers had been given to the profession by him, notably two on serous effusion into the arachnoid cavity, which appeared in the *Buffalo Medical Journal*, in May, 1849, and April, 1850, and one on pleuro pneumonitis complicated with pericarditis, in the same periodical in February, 1850, in which he again pointed out the occasional connection of acute cerebral symptoms with lesions confined to the heart or pericardium, and the errors in diagnosis which may be made during life In November, 1849, he wrote a report on the epidemic of cholera in Buffalo in 1849 In the August, 1850, and succeeding numbers of his journal he gave a most elaborate analysis of fifty-two cases of typhoid fever, not only one of the most complete and valuable papers issued in the country during the year, but it remains to this day one of the most faithful expositions of the subject ever published in America Of this paper the Standing Committee of the Association on Medical Literature reported at the meeting in Charleston, in 1851 "We cannot, in justice to the labor and talent displayed speak of it merely as affording a rigid comprehensive analysis of the subject As an exposition of the clinical facts of the disease, as witnessed in this country, as an American work on fever, rich in material and admirable in execution, it is one of the best contributions ever published in the United States" His prize essay for 1852, on variations of pitch in percussion and respiratory sounds, has already been mentioned On the title page of this essay was the following quotation from Andry's work on Diseases of the Heart "Happy am I in my own estimation if I have thrown any light, in this Memoir, upon any clinical questions, and especially if I have stimulated the zeal of our young practitioners for the diagnostic studies which constitute, in my mind, one of the most beautiful parts of our art" In the same year he published his reports on Continued Fever, and in 1853 his clinical reports on Dysentery and on Chronic Pleurisy These papers, including the prize essay, were translated into French and published in Paris in 1854

Dr Flint's success as an author was not the result of chance An ever accumulating experience, added to patient work, with an analytical mind and a polished style, combined to make him one of the most agreeable of writers His writings may be held up as models of scientific style The conclusions drawn from facts were just and complete, the whole subject was stated fully, leaving nothing to be inferred He seemed to feel it his duty to his profession to contribute his quota to medical literature, as it is the duty of every physician who draws freely from the common stock At the meeting of the Association in Cleveland, Ohio, in 1883, Dr Flint was elected President, though he neither sought nor desired the office, and his masterly address in Washington will always remain an object of careful study by those who have the best interests of the Association at heart It was delivered just thirty-eight years after the first meeting of the National Medical Convention in New York, and opened with the words "The American Medical Association has reached an age when the thoughts of one whose retrospections extend to its birth, naturally revert to the natal period of its existence Of those who cooperated in the formation of the Association, not many now remain, and after a few more annual meetings all will have passed away" The objects of the Association, and the motives which led to its formation, are clearly and fully set forth It will be remembered that Dr Flint was made a member of the Committee on Medical Education at the first meeting of the National Convention, and in his address he ably discusses the practical question "What can the Association do to promote more and more the elevation of the standard of medical education? He shows that this can not be done by decrying the status of the profession "As a body," he says, "the members of our profession in this country are neither ignorant nor in any respect unworthy The profession is honorable and honored In no other country is the social status of its members higher"

At the meeting of the International Medical Congress in London, in 1881, Dr Flint read a paper on "The Analytical Study of Auscultation and Percussion with Reference to the Distinctive Characteristics of the Pulmonary Signs," a paper so suggestive and valuable that the brilliant and much lamented Mahomed suggested that a committee be appointed to report on a "Uniform Nomenclature of Auscultatory Sounds in the Diagnosis of Diseases of the Chest" Dr Flint was made Chairman of the Committee, and the report was made at the meeting of the International Congress in Copenhagen, in 1884 But though he probably did more good work in the department of diseases of the chest than any man of the century—certainly as much—he was in no sense a specialist He was not not only a born doctor, but an all round one His work in renal diseases was of the highest character, as will be seen from one article only, "The Elements of Prognosis in Bright's Disease," recently published in The Journal His published works and papers are so familiar that it is unnecessary to give the list in this place

---

At a meeting of the Faculty of the Bellevue Hospital Medical College held March 15, 1886, on motion it was resolved

That this Faculty keenly sympathizes with the wife son and family of our lamented *confrere*, Professor Austin Flint, in their irreparable loss of a tenderly devoted husband, father, and counsellor.

Yet that in their grief they will find consolation in that they can ever cherish the memory of his spotless life, his greatness and his goodness

That the son, grandson, and great grandson of eminent physicians and surgeons, entrusted by nature with medical skill and sagacity, so nobly fulfilled his mission

That his powers of thought and action were preserved in their fulness of vigor to the close of his intellectual and benevolent career

That his prayer was granted in being spared from lingering illness

That as he had mitigated the sufferings of others he himself was saved from suffering

That after a day and evening of arduous medical duties he retired to his painless couch of death—

"God's finger touched him and he slept"

Resolved, That this Faculty has been deprived in this dispensation of Providence of one of the most illustrious founders of this College, whose professors felt honored by having their names enrolled with his

One through whose instrumentality other medical colleges have been established in our country,

One whose pupils fill chairs in our Faculty, while others hold distinguished positions in similar institutions of medical instruction,

One whose self sacrificing and gratuitous services have been cheerfully rendered to the sufferers in Bellevue Hospital and other hospitals in our city and country for the last half century

Resolved, that our city and the world has lost in his death one whose noble presence and tender sympathies in the sick room cheered the heart and secured the confidence of the afflicted,

Whose remarkable record is justly the pride of any profession in any land,

Whose gifts and labors were recognized at home and abroad,

Who was honored with positions of distinction in America and Europe rarely won,

From whose eloquent lips thousands of students in many colleges have been taught the science of medicine, and by whose graphic pen tens of thousands have gained medical knowledge, and whose numerous and valued works translated into many tongues, will continue as fountains of instruction to future generations

Resolved, That while our heads bow in grief at his sudden death, our hearts rise in gratitude to God for his prolonged life of widely extended usefulness

Resolved, That a copy of these resolutions be engrossed and transmitted to his family, and that they be given for publication to the medical and secular journals of this city

We may fitly close this sketch by quoting the remarks of Dr Flint's long time friend, Dr John C Dalton, at the Commencement exercises of the Bellevue Hospital Medical College "I am sure there is but one thought in the minds of all who are here in this room this evening A familiar and venerated presence no longer meets your eyes from its accustomed place A voice to which you have listened, always with delight and profit, for so many years, is suddenly quiet on this returning anniversary And yet I doubt whether our departed friend and counsellor ever wielded over his colleagues or class such an overwhelming influence as he does at this moment

"He speaks to you to night not with the imperfect utterance of an occasional discourse or a momentary topic, but with the complete and unmistakable language of a lifetime He stands before you now in his entire character, ennobled by the record of his qualities and deeds, as the acknowledged representative of all that is best in the study, the teaching, and the practice of medical science and art It was the universal verdict, from which I have never heard a dissenting voice, that among all the eminent men of the profession in this wide country, his was the one name which would be inevitably selected as the first His single-minded devotion, untiring industry, and indomitable strength of purpose raised him long ago to the position which he held to the last day of his life And now, after conducting your studies through the session just closed, he has graduated before you, he has taken his final and highest degree, conferred by the Power that is Supreme over us all, and the parchment of his biography now bears the stamp of Emeritus

"For you, gentlemen of the medical class, I am sure that Dr Flint's teachings are far from being ended I can wish you nothing better than that you carry them with you throughout the future, and that you never cease to remember his instructions and to emulate his life"

MISCELLANEOUS

Medical Society of the State of Tennessee —The fifty third annual meeting of the Medical Society of the State of Tennessee will be held in Memphis, commencing Tuesday, April 6, 1886

Dr D D Saunders, of Memphis, is Chairman of the Committee of Arrangements

Members who cannot attend the meeting can retain their membership and receive a copy of the Transactions by forwarding $1 to the Treasurer

Members or delegates who desire to reach Memphis over the Louisville and Nashville system, should purchase regular tickets to Memphis and procure from the ticket agent, when these tickets are purchased, a certificate to this effect, which should be filled up by the Secretary of the meeting to show that the person named was in attendance and entitled to special rate, and upon presentation of the same to the agent at Memphis, he will sell return tickets at one-third fare The E T Va & Ga and the M & C will sell tickets to Memphis, at three cents per mile, issuing to each purchaser a certificate, on which, if properly signed by the Secretary of the Society, and presented to the ticket agent at Memphis, he will sell a return ticket at one cent per mile Tickets to be sold 3d, 4th, 5th and 6th of April, and return tickets to be sold 7th, 8th, 9th and 10th

C C Fite, *Secretary*

The American Surgical Association will meet in Washington, D C, on April 28, 29, 30, and May 1

The French Surgical Congress will be held in Paris on October 18 to 24 inclusive

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM MARCH 13 1886 TO MARCH 19 1886

Capt Jno Van R Hoff, Asst Surgeon, ordered from Dept Cal to Dept Mo (S O 60, A G O, March 13, 1886)

Robertson, R L, 1st Lieut and Asst Surgeon, granted leave of absence for one month Fort Ringgold, Tex (S O 29, Dept Tex, March 8, 1886)

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI Chicago, April 3, 1886 No 14

ORIGINAL ARTICLES

ATROPINE AND ESERINE IN OPHTHALMIC THERAPEUTICS

BY J W THOMPSON, M D,

OF ST PAUL, MINN

In a physiological sense atropine and eserine are synonymous with the terms mydriatic and myotic Each is a representative of the class to which it belongs Duboisine is a more powerful mydriatic than atropine, while pilocarpine is a greater irritant and a less powerful myotic than eserine A few cases that have come to my notice recently, forcibly illustrating the misuse, or I might say the abuse, of these valuable remedial agents furnish me material as well as occasion for inviting the attention of the profession to this seemingly threadbare subject The cases which I desire more especially to signalize at present were victims of the misapplied use of atropine Some of them had been rendered hopelessly blind by a single drop of a solution of the drug While it is perhaps impossible, in hundreds of cases, to show that any possible harm has resulted from the empirical use or administration of very many medicinal agents, it is quite different in the use of atropine as a mydriatic

In order to avoid almost or quite criminal mistakes in the application of this agent to diseases of the eye, it is absolutely indispensable that it be employed scientifically The same may be said of eserine, though mistakes with it occur less often only from the fact that a myotic in ophthalmic practice is less frequently demanded than a mydriatic It is by no means its inability to do harm when misapplied To illustrate my meaning better and to establish some definite data founded upon scientific investigation for the rational application of these agents which are so potent for good or evil, it becomes essential to look into certain diseased conditions of the eye which decidedly forbid or demand the application of one or the other of these drugs It is the absence of rational investigation that has led the way to much empiricism in the use especially of mydriatics The conditions that contra indicate their use are abundantly found in glaucoma I do not call to mind any disease in the whole category of human ills concerning which there have been advanced so many vague speculations and meaningless theories Its very name signifies ignorance in regard to the pathology of the disease it represents But I have neither time nor inclination to quarrel with its etymological signification Its long and intimate association with this fearful disease has clothed it with a meaning that perhaps entitles it to some respect and consideration

Before dropping a solution of atropine into the eye, examine carefully the intra ocular tension If this be above the normal, and the iris be free of inflammation, withhold the atropine until a further investigation is made Increased intra ocular tension unattended by other objective manifestations of disease can safely be taken as a key-note to glaucoma, in so far at least as the use of atropine is concerned For a better comprehension of the manner by which atropine energizes the glaucomatous process it becomes necessary to note the changes that take place within the eyeball at the very beginning of intra ocular tension This has been a fruitful subject of speculation So fruitful, indeed, has it been that to canvass the various theories that have from time to time been advocated concerning it would fill a volume of no mean dimensions It was formerly supposed to be the result of a hyper secretion Even von Grafe, whose brilliant acquisitions in the field of ophthalmology have earned for him an endless fame, entertained this erroneous view, and basing it upon the supposition that the iris furnished the superabundant secretion, did the iridectomy with the view of diminishing its secreting surface Thus did false reasoning stumble upon the remedy which is employed to day as the most successful means of combating this fearful disease Von Grafe was, however, one of the greatest pioneers in the field of ophthalmology He had not the advantages of the present He did not work with a light and strength borrowed from the past, hence the work he did was no measure of his capabilities

The increased intra ocular secretion is only one of the sequelæ of glaucoma, and the increased intra ocular tension is in the beginning only the physical sequence of the retention of a part or all of the normal intra ocular secretion In the posterior chamber the normal secretion is furnished by the ciliary bodies for the nourishment of the lens and its capsule After it has accomplished its purpose in the posterior chamber it passes through the pupillary opening into the anterior chamber and mingles with the fluid in this chamber which is secreted by the membrane of Decemet When its function here has been performed it is eliminated by the organs of elimination and taken up by the general circulation.

Thus the equilibrium is maintained between secretion and elimination. The eliminating apparatus is found chiefly in the anterior chamber at the point where the periphery of the cornea and the base of the iris seem to meet. This is composed of minute infiltration channels that are lined with endothelial cells, and communicate with the spaces of Fontana in the base of the iris. These in turn communicate with Schlem's canal, which passes around the eyeball in the sclerotic near the sclero corneal junction, and empties in the anterior ciliary veins. When, therefore, the organs of elimination become diseased and fail to do their duty, the first result is increased tension, which is the first symptom of glaucoma. All the other symptoms of this disease can be reasonably accounted for by taking the disease of elimination as the starting point. Hyper-secretion is only the pathological sequence of diseased and deficient elimination. When the intra ocular secretion is retained beyond the period of its utility it becomes disorganized, and furnishes a fruitful source of irritation and disease not only to the organs it was designed to nourish, but to all others with which it comes in contact. The consequent result of this is increased secretion. Hence the increased tension which had its origin in defective elimination is rapidly multiplied until it cuts off the circulation from the retina and optic nerve, which, together with the constant pressure maintained on these parts, produces atrophic changes which result sooner or later in the complete destruction of vision. From this it is evident that the retention of the worn out intra ocular secretion is responsible directly or indirectly for all the intra ocular changes that take place in glaucoma, and that this disease is properly speaking, a disease of elimination.

This hurried and imperfect explanation of the glaucomatous process clears the way to a better comprehension of the deleterious action of atropine and of the prophylactic influence of eserine in this disease. In other words, it enables one to discern more clearly how atropine may increase intra ocular tension and how eserine may diminish it. Atropine being a pupil dilator, forces the iris back into the angle of the anterior chamber, which is occupied by those minute channels which perform such an important part in the process of elimination. It causes the iris to act like a valve in closing them, thus destroying the equilibrium between elimination and secretion. It favors the accumulation of the latter and rapidly increases the intra ocular tension. I have, in one or two instances, known it to increase the tension so rapidly and violently as completely to destroy an eye in a few hours. It was so rapid and violent that it left no opportunity for operative interference, and left not a vestige of vision. Thus atropine not only accelerates the action of glaucoma, but may rapidly develop it in an eye verging upon this disease, or having only a slight predisposition to it. Eserine, being a pupil-contractor, pulls the iris away from the angle of the anterior chamber, and thus assists in freeing the obstructed organs of elimination. It is not claimed for eserine that it is capable of curing glaucoma when fully developed, for the iris under these circumstances may be widely dilated, pushed forward against the posterior surface of the cornea, and deprived perhaps of its contractile powers by the destructive action of the worn-out and retained secretion. So long, however, as the contractile power of the iris remains, eserine may prove invaluable by stimulating its contraction, and by this means breaking up the little bands of adhesion that may have formed in and about the drainage passages in the angle of the anterior chamber. The value of eserine is best demonstrated in an eye that is verging upon an attack of glaucoma. It may cure the predisposing tendency to this fearful disease. In other words, if timely employed it may tide it over altogether.

An eye is predisposed to glaucoma when the drainage channels are taxed to their utmost capacity to maintain under ordinary circumstances the equilibrium between secretion and elimination. When, however, by hypermetropia, injury, neuralgia, or sudden fright, the secretion is rapidly increased and thereby the drainage apparatus becomes further embarrassed by compression, the increased intra ocular tension must be the physical result which, if permitted to continue, will be rapidly followed by all the other symptoms of glaucoma. Eserine, if timely employed in such a case, may furnish complete relief by contracting the circular fibers of the iris and drawing the bulk of it away from the angle of the anterior chamber, and thus liberating the compressed drainage apparatus, while the use of atropine must produce a diametrically opposite result by dilating the iris and tucking it back, as it were, into the already narrowed angle of the anterior chamber, and thus further obstructing the drainage channels.

There have been many conflicting statements in regard to the action of atropine. Some have even asserted that it is powerless to diminish intra ocular tension, and in their eagerness to prove their assertions at all hazards, have made a shameful exhibition of ignorance by citing its action in glaucoma. This is only a repetition of the old story of "Hamlet with Hamlet left out." In a healthy eye with a full sized anterior chamber and a good drainage apparatus, atropine diminishes the volume of the healthy circulation. The physiological action of a drug may be as different from its therapeutical as disease is from health. It is the former action, however, that frequently furnishes rational data for its application in disease. In iritis there may also be increased intra ocular tension as the result of a swollen iris, and an increase of the intra ocular circulation. In tension arising from this cause atropine is indispensable. Increased tension in iritis is by no means constant, yet atropine is urgently demanded. It diminishes the tension in the same manner as it lowers the normal tension of a healthy eye. It relaxes the iris, diminishes the caliber of the vessels, and favors the absorption of the products of inflammation. It places the muscle in a state of physiological rest, which is the first indication to be met, if possible, in every inflamed organ or tissue. It is to the ophthalmic surgeon what splints and bandages are to the general surgeon. It is the great ocular sedative. It is as indispensable to the ophthalmic practitioner as opium and its preparations are to the general practitioner. The more useful is a remedial agent the greater is the tendency to its abuse. To avoid this evil a remedy should not be used empirically, but rather as a result of scientific investigation in so far as it is practicable.

Eserine in iritis would be almost as calamitous as atropine in glaucoma, by contracting the pupil, increasing the engorgement of the vessels and rendering the products of inflammation more profuse. Eserine, however, is often serviceable when there is a perforating ulcer in the periphery of the cornea, by contracting the iris and holding it away from the perforation, and thus, perhaps, preventing an anterior synechia. It has also been advantageously employed in retinitis pigmentosa. In this disease the periphery of the visual field is imperfect, and it is difficult for the patient to draw the line of demarcation between the perfect and the imperfect part of the field, and vision consequently becomes confused and indistinct. Eserine here contracts the pupil and cuts off the imperfect part of the visual field, which obtains for the patient a better definition of objects by permitting the use only of the central part of the field, in which there may be good sharpness of vision. Since this effect can readily be obtained by a mechanical device, I think its use for this purpose is very questionable. I have only time and space to observe that atropine is frequently indispensable in correcting errors of refraction by relaxing the spasm of accommodation. Since eserine and atropine are so potent for good or evil, it will be useful to have some well formulated ideas about their application. For this purpose I will summarize as briefly as possible, first, the various effects of atropine on the healthy eye. It lessens intra ocular tension in an eye that is healthy and normally constructed. By normal construction I mean an eye that is emmetropic and has a full sized anterior chamber.

In such an eye the atropine lessens intra ocular tension by diminishing the calibre and contents of internal vessels and checking the secretion of the ciliary bodies. It lessens the tension in iritis by contracting the radial fibres of the iris, which in turn contract the over distended and engorged blood vessels, thus diminishing the bulk of the iris and the ciliary bodies. It checks the inflammatory exudation and favors its absorption. It also diminishes the cell proliferation and the transmigration of white corpuscles, and by contracting the iris it breaks up synechiæ that may have been formed, and reestablishes a free communication between the chambers, allowing the secretion to reach the organs of elimination.

Atropine increases intra ocular tension when there is a shallow anterior chamber by dilating the iris and tucking it back into the angle of the anterior chamber, and compressing the channels of elimination. In serous iritis its action is feeble, changeable and unreliable. Eserine diminishes intra-ocular tension when the anterior chamber is shallow, the iris sluggish and partially dilated, with its anterior surface resting perhaps against the posterior surface of the cornea, by contracting the circular fibres of the iris and drawing it away from the angle of the anterior chamber and freeing the eliminating channels, and thus reestablishing the equilibrium between secretion and elimination. In serous iritis the anterior chamber is deepened by the iris being somewhat dilated and pressed backwards against the lens capsule. Here eserine is rather uncertain, yet it may be safely employed with the view of breaking up any little adhesions that may have formed about the drainage channels. Again, eserine increases intra ocular tension temporarily in a healthy eye by increasing the quantity of the circulation in the iris and the ciliary bodies, which in turn increases their secretion. For a similar reason it increases the tension in iritis, and therefore augments the products of inflammation and favors adhesions of the iris to the cornea or the lens capsule. Therefore, I reiterate, atropine in glaucoma hastens the destruction of the eye, and in an eye verging upon glaucoma may rapidly develop the disease in the most violent form. Eserine may prevent the occurrence of glaucoma when an eye is predisposed to the disease and mitigate the symptoms of a fully developed case, and as it were postpone the destruction of the organ till an iridectomy can be done for its relief. In iritis atropine is absolutely indispensable and eserine may destroy the organ in a very short space of time. Hence, it is as important to know when to withhold these remedies as it is to know when to employ them. I am free to admit that the indications for their use are sometimes surrounded with perplexities and doubts.

> "Our doubts are traitors,
> And make us lose the good we oft might win
> By fearing to attempt."

Pliny says "Never do anything concerning the rectitude of which you have a doubt." The attempt to decide certain obscure cases extemporaneously and hastily has resulted many times in the loss of the patient's vision and the physician's reputation. To rid this important subject as much as possible of the doubts and perplexities that occasionally surround it, I will classify certain prominent objective symptoms which should always be carefully reviewed before dropping into an eye either a solution of atropine or eserine.

In glaucoma the circumcorneal injection is well pronounced and has a decided venous hue. The eye presents a dusky, staring appearance. The entire surface of the cornea is steamy and looks much like ground glass. The anterior chamber is very shallow, the aqueous humor, from the diminished calibre of the chambers, appears scanty. The pupil is widely dilated and ovoid in form. The iris appears thin, dull, stationary, its fibres obliterated and its surface bulged forwards till it nearly or quite touches the posterior surface of the cornea. Observing the same order of symptoms in serous iritis, the circumcorneal injection is rather indistinct and not so well marked as in glaucoma, and the tint is more delicate, the haziness of the cornea is not so uniform, and the lower segment of it on its inner surface is irregularly occupied with small white dots more or less numerous in proportion to the severity of the attack. The anterior chamber is deep and large mostly at the expense of the posterior chamber. The aqueous humor

Thus the equilibrium is maintained between secretion and elimination. The eliminating apparatus is found chiefly in the anterior chamber at the point where the periphery of the cornea and the base of the iris seem to meet. This is composed of minute infiltration channels that are lined with endothelial cells, and communicate with the spaces of Fontana in the base of the iris. These in turn communicate with Schlem's canal, which passes around the eyeball in the sclerotic near the sclero corneal junction, and empties in the anterior ciliary veins. When, therefore, the organs of elimination become diseased and fail to do their duty, the first result is increased tension, which is the first symptom of glaucoma. All the other symptoms of this disease can be reasonably accounted for by taking the disease of elimination as the starting point. Hyper secretion is only the pathological sequence of diseased and deficient elimination. When the intra ocular secretion is retained beyond the period of its utility it becomes disorganized, and furnishes a fruitful source of irritation and disease not only to the organs it was designed to nourish, but to all others with which it comes in contact. The consequent result of this is increased secretion. Hence the increased tension which had its origin in defective elimination is rapidly multiplied until it cuts off the circulation from the retina and optic nerve, which, together with the constant pressure maintained on these parts, produces atrophic changes which result sooner or later in the complete destruction of vision. From this it is evident that the retention of the worn out intra ocular secretion is responsible directly or indirectly for all the intra ocular changes that take place in glaucoma, and that this disease is properly speaking, a disease of elimination.

This hurried and imperfect explanation of the glaucomatous process clears the way to a better comprehension of the deleterious action of atropine and of the prophylactic influence of eserine in this disease. In other words, it enables one to discern more clearly how atropine may increase intra ocular tension and how eserine may diminish it. Atropine being a pupil dilator, forces the iris back into the angle of the anterior chamber, which is occupied by those minute channels which perform such an important part in the process of elimination. It causes the iris to act like a valve in closing them, thus destroying the equilibrium between elimination and secretion. It favors the accumulation of the latter and rapidly increases the intra ocular tension. I have, in one or two instances, known it to increase the tension so rapidly and violently as completely to destroy an eye in a few hours. It was so rapid and violent that it left no opportunity for operative interference, and left not a vestige of vision. Thus atropine not only accelerates the action of glaucoma, but may rapidly develop it in an eye verging upon this disease, or having only a slight predisposition to it. Eserine, being a pupil contractor, pulls the iris away from the angle of the anterior chamber, and thus assists in freeing the obstructed organs of elimination. It is not claimed for eserine that it is capable of curing glaucoma when fully developed, for the iris under these circumstances may be widely dilated, pushed forward against the posterior surface of the cornea, and deprived perhaps of its contractile powers by the destructive action of the worn out and retained secretion. So long, however, as the contractile power of the iris remains, eserine may prove invaluable by stimulating its contraction, and by this means breaking up the little bands of adhesion that may have formed in and about the drainage passages in the angle of the anterior chamber. The value of eserine is best demonstrated in an eye that is verging upon an attack of glaucoma. It may cure the predisposing tendency to this fearful disease. In other words, if timely employed it may tide it over altogether.

An eye is predisposed to glaucoma when the drainage channels are taxed to their utmost capacity to maintain under ordinary circumstances the equilibrium between secretion and elimination. When, however, by hypermetropia, injury, neuralgia, or sudden fright, the secretion is rapidly increased and thereby the drainage apparatus becomes further embarrassed by compression, the increased intra ocular tension must be the physical result which, if permitted to continue, will be rapidly followed by all the other symptoms of glaucoma. Eserine, if timely employed in such a case, may furnish complete relief by contracting the circular fibers of the iris and drawing the bulk of it away from the angle of the anterior chamber, and thus liberating the compressed drainage apparatus, while the use of atropine must produce a diametrically opposite result by dilating the iris and tucking it back, as it were, into the already narrowed angle of the anterior chamber, and thus further obstructing the drainage channels.

There have been many conflicting statements in regard to the action of atropine. Some have even asserted that it is powerless to diminish intra ocular tension, and in their eagerness to prove their assertions at all hazards, have made a shameful exhibition of ignorance by citing its action in glaucoma. This is only a repetition of the old story of "Hamlet with Hamlet left out." In a healthy eye with a full sized anterior chamber and a good drainage apparatus, atropine diminishes the volume of the healthy circulation. The physiological action of a drug may be as different from its therapeutical as disease is from health. It is the former action, however, that frequently furnishes rational data for its application in disease. In iritis there may also be increased intra ocular tension as the result of a swollen iris, and an increase of the intra ocular circulation. In tension arising from this cause atropine is indispensable. Increased tension in iritis is by no means constant, yet atropine is urgently demanded. It diminishes the tension in the same manner as it lowers the normal tension of a healthy eye. It relaxes the iris, diminishes the caliber of the vessels, and favors the absorption of the products of inflammation. It places the muscle in a state of physiological rest, which is the first indication to be met, if possible, in every inflamed organ or tissue. It is to the ophthalmic surgeon what splints and bandages are to the general surgeon. It is the great ocular sedative. It is as indispensable to the ophthalmic practitioner as opium and its preparations are to the general practitioner The more useful is a remedial agent the greater is the tendency to its abuse To avoid this evil a remedy should not be used empirically, but rather as a result of scientific investigation in so far as it is practicable

Eserine in iritis would be almost as calamitous as atropine in glaucoma, by contracting the pupil, increasing the engorgement of the vessels and rendering the products of inflammation more profuse Eserine, however, is often serviceable when there is a perforating ulcer in the periphery of the cornea, by contracting the iris and holding it away from the perforation, and thus, perhaps, preventing an anterior synechia It has also been advantageously employed in retinitis pigmentosa In this disease the periphery of the visual field is imperfect, and it is difficult for the patient to draw the line of demarcation between the perfect and the imperfect part of the field, and vision consequently becomes confused and indistinct Eserine here contracts the pupil and cuts off the imperfect part of the visual field, which obtains for the patient a better definition of objects by permitting the use only of the central part of the field, in which there may be good sharpness of vision Since this effect can readily be obtained by a mechanical device, I think its use for this purpose is very questionable I have only time and space to observe that atropine is frequently indispensable in correcting errors of refraction by relaxing the spasm of accommodation Since eserine and atropine are so potent for good or evil, it will be useful to have some well formulated ideas about their application For this purpose I will summarize as briefly as possible, first, the various effects of atropine on the healthy eye It lessens intra ocular tension in an eye that is healthy and normally constructed By normal construction I mean an eye that is emmetropic and has a full sized anterior chamber

In such an eye the atropine lessens intra-ocular tension by diminishing the calibre and contents of internal vessels and checking the secretion of the ciliary bodies It lessens the tension in iritis by contracting the radial fibres of the iris, which in turn contract the over distended and engorged blood vessels, thus diminishing the bulk of the iris and the ciliary bodies It checks the inflammatory exudation and favors its absorption It also diminishes the cell proliferation and the transmigration of white corpuscles, and by contracting the iris it breaks up synechiæ that may have been formed, and reestablishes a free communication between the chambers, allowing the secretion to reach the organs of elimination

Atropine increases intra-ocular tension when there is a shallow anterior chamber by dilating the iris and tucking it back into the angle of the anterior chamber, and compressing the channels of elimination In serous iritis its action is feeble, changeable and unreliable Eserine diminishes intra-ocular tension when the anterior chamber is shallow, the iris sluggish and partially dilated, with its anterior surface resting perhaps against the posterior surface of the cornea, by contracting the circular fibres of the iris and drawing it away from the angle of the anterior chamber and freeing the eliminating channels, and thus reestablishing the equilibrium between secretion and elimination In serous iritis the anterior chamber is deepened by the iris being somewhat dilated and pressed backwards against the lens capsule Here eserine is rather uncertain, yet it may be safely employed with the view of breaking up any little adhesions that may have formed about the drainage channels Again, eserine increases intra ocular tension temporarily in a healthy eye by increasing the quantity of the circulation in the iris and the ciliary bodies, which in turn increases their secretion For a similar reason it increases the tension in iritis, and therefore augments the products of inflammation and favors adhesions of the iris to the cornea or the lens capsule Therefore, I reiterate, atropine in glaucoma hastens the destruction of the eye, and in an eye verging upon glaucoma may rapidly develop the disease in the most violent form Eserine may prevent the occurrence of glaucoma when an eye is predisposed to the disease and mitigate the symptoms of a fully developed case, and as it were postpone the destruction of the organ till an iridectomy can be done for its relief In iritis atropine is absolutely indispensable and eserine may destroy the organ in a very short space of time Hence, it is as important to know when to withhold these remedies as it is to know when to employ them I am free to admit that the indications for their use are sometimes surrounded with perplexities and doubts

> "Our doubts are traitors,
> And make us lose the good we oft might win
> By fearing to attempt"

Pliny says "Never do anything concerning the rectitude of which you have a doubt" The attempt to decide certain obscure cases extemporaneously and hastily has resulted many times in the loss of the patient's vision and the physician's reputation To rid this important subject as much as possible of the doubts and perplexities that occasionally surround it, I will classify certain prominent objective symptoms which should always be carefully reviewed before dropping into an eye either a solution of atropine or eserine

In glaucoma the circumcorneal injection is well pronounced and has a decided venous hue The eye presents a dusky, staring appearance The entire surface of the cornea is steamy and looks much like ground glass The anterior chamber is very shallow, the aqueous humor, from the diminished calibre of the chambers, appears scanty The pupil is widely dilated and ovoid in form The iris appears thin, dull, stationary, its fibres obliterated and its surface bulged forwards till it nearly or quite touches the posterior surface of the cornea Observing the same order of symptoms in serous iritis, the circumcorneal injection is rather indistinct and not so well marked as in glaucoma, and the tint is more delicate, the haziness of the cornea is not so uniform, and the lower segment of it on its inner surface is irregularly occupied with small white dots more or less numerous in proportion to the severity of the attack The anterior chamber is deep and large mostly at the expense of the posterior chamber The aqueous humor is abundant and more or less turbid The iris presents a sullied, dirty appearance, though not so lustreless as in glaucoma Its fibrillar structure is better preserved The pupil is dilated and round, while in glaucoma it is ovoid in form

In iritis the circumcorneal injection presents a moderately well marked, red color, due to arterial as well as venous injection The cornea is unaffected The anterior chamber is shallower than normal, caused by the thickened condition of the iris The aqueous humor is more or less turbid in consequence of the effused products of inflammation The pupil is somewhat contracted, irregular, and in severe cases adherent posteriorly or anteriorly The iris is thick and swollen, discolored and somewhat nodular

Such are the prominent objective symptoms that may assist in doubtful cases to differentiate between glaucoma, iritis and serous iritis Let the watchword be "atropine in iritis and eserine in glaucoma"

309 Wabasha St , cor 3rd, St Paul, Minn

THE MECHANISM OF INDIRECT FRACTURES OF THE SKULL

BY CHARLES W DULLES, M D,

SURGEON TO THE OUTPATIENT DEPARTMENT OF THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA AND OF THE PRESBYTERIAN HOSPITAL IN PHILADELPHIA

(Continued from page 342)

ANATOMICAL PECULIARITIES OF THE SKULL

Having now briefly considered the elastic properties of the skull, let us next study its anatomical peculiarities, which, as I have already pointed out, may be expected to modify the results which might be expected if the shape of the skull were regular and its thickness uniform These peculiarities must be given due consideration if we would avoid the error of applying too rigorously the bursting theory, at the same time they must not be over-estimated This was the error of Félizet, who was right in attaching great importance to the architectonic conditions of the skull, but who was mistaken in supposing that his buttresses and centre of resistance would stand firm against all or most fractures So Aran, before him, was right in supposing that fractures starting in one fossa of the skull would often be limited to that fossa, but he erred in supposing this could be stated as a general law Both of these theories depended upon what we may call the accidents of fractures of the skull, the essential, I believe—and the future may show that this view may be applied too rigorously—is to be found in the elastic properties of the skull, as revealed not only by the experiments of von Bruns and of his German followers, but also by those of Aran and of Félizet themselves, and by the investigations of others before their time, to whom allusion has already been made in the historical sketch at the beginning of this paper The thinnest portions of the various bones of the skull are as follows

In the frontal bone The walls of the frontal sinuses, the orbital plates, the temporal portions, and sometimes on both sides of the crest for the attachment of the falx cerebri

In the ethmoid bone The horizontal plate (The other parts of the bone may be regarded as outside of the true cranial case)

In the sphenoid bone The orbital portion of the greater wings, and the walls of the sphenoidal sinuses The basilar portion of this bone has a deceptive appearance of strength, on account of its thickness, but on section it will be seen to be of such open cancellated structure that it is not surprising to find that it is very often fractured

In the parietal bones The lower border, just above the parieto squamosal suture, and both of the inferior angles

In the occipital bone The floor of the cerebellar fossæ, and to a less extent the floor of the posterior cerebral fossæ

In the temporal bones I take these bones last because they present some extremely interesting anatomical peculiarities, the importance of which I have not found dwelt upon as I think it ought to be The thinness of the squamous plates is too familiar to need more than mention But the temporal bone is also often very thin over the cotyloid depression for the head of the inferior maxilla The mastoid portion is also sometimes occupied by such large open spaces as materially to weaken its walls The petrous portion does not, on section, present everywhere that solid and rocky appearance to which it owes its name, and which it only partly deserves The roof of the external auditory meatus is sometimes very thin, in a line parallel to and anterior to the superior ridge of the bone The floor of this canal is also comparatively thin The plate of vitreous which covers the anterior inclined plane of the bone is often a mere shell over the promontory above the inferior semicircular canal, and further back, in front of the groove for the superior petrosal sinus, it overlies a mass of honeycombed cancellated tissue which communicates with the large cells of the mastoid process These facts explain the many fractures which are found to run parallel to the crest of this bone, and which have often been wondered at In like manner the curious course which a fracture sometimes takes at right angles to the main axis of the petrous bone may be understood when we study the channels and excavations belonging to the middle and internal ear, the internal auditory meatus, the carotid canal, the groove for the inferior petrosal sinus, and the jugular foramen

These are some of the weak points of the bones of the skull Others might be mentioned, as for example, the antero lateral rim of the foramen magnum, which, in some cases, is very porous, and far from so strong as its thickness would indicate It will be noticed that all of these thin parts of the skull lie in or near the base, and clinical observation shows that they are very frequently the seat of fracture There are a few other anatomical peculiarities of the skull to which I would like to call your attention before I leave a part of our subject which might well occupy much more time than we can spare it First, in regard to the posterior clinoid processes It was long a matter entirely unexplained that violence done to the skull was followed by no fracture, except one breaking off the posterior clinoid processes of the sphenoid bone. But the explanation is easy enough if we accept the "bursting theory," and recognize the fact that the tentorium cerebelli is attached in front to these processes, and that when the long diameter of the skull is increased the tense tentorium holds back with an unyielding strain and tears these processes from their attachments to the rest of the bone. In this we have both a full explanation of the mechanism of these fractures and a beautiful confirmation of the "bursting theory" of indirect fractures of the skull.

Again, I may call attention to the peculiar conditions of the basi sphenoid and petrous bones. These bones are never, I believe, united by bony union or close fitting dentations, like the other bones of the skull. Their adjacent surfaces are simply applied against each other and united by a membranous or ligamentous band. The plane in which these bones articulate is such that the basi sphenoid is placed like a wedge between the apices of the two petrous bones. As a consequence, any force, like a blow on the vertex driving the cranium down upon the spinal column, or a fall upon the buttocks or feet, driving the spinal column up against the cranium will have the effect of forcing the wedge shaped basi sphenoid upward and forward between the two rigid petrous bones, with the frequent result of knocking off one or both of the apices of the latter. This form of fracture is another which has excited much surprise and some fanciful explanations, but, in the light of what has just been stated, it seems to me to be quite comprehensible.

Finally, I have been struck by the fact that certain peculiar fractures of the base of the skull seem to have been due to support of a segment of the occipital bone furnished by the inclination upward and outward of the articular surfaces of the atlas, which embrace the condyles of the occipital bone and restrain it from rupture to such an extent that a fissure will pass on both sides of the protected region rather than through it. This form of fracture is illustrated by a beautiful specimen taken from the Mutter Museum of this College.

ARCHITECTONIC PECULIARITIES OF THE SKULL.

I cannot now do more than allude to the general oval shape of the skull, its various curves, arches, and buttresses, the comparatively even shape and homogeneous character of the vault, and the irregular shape and varying thickness and thinness of the base, with its prominences and depressions, its channels and its so called sinuses. These are too complex to be detailed here, and too familiar to all to make this necessary. But I would call your attention to what Félizet has laid so much stress upon, the reinforcement of certain regions, as at the junction of the greater wings of the sphenoid bone with the frontal and temporal bones, and of the petrous portion of the temporal bones with the parietals, at the ridge for the attachment of the longitudinal and lateral sinuses within the skull and at those for the attachment of muscles at the back of the head, which vary in importance in different individuals. In addition, we may well bear in mind the comparative roundness of the vault and flatness of the base, and the wedge like insertion of the lower borders of the parietal bones between the bevelled upper edges of the squamous bones, and the projection of the ends of the petrous bones against the basi sphenoid, of which I have already spoken in detail. For most of the points one may consult the works on general and special anatomy, or, better still, the skull itself. They all must be considered in studying variations from the result to be expected from the application of any given theory in regard to the mechanism of fractures of the skull, although, as I have said, they need not be expected to controvert any law of general applicability.

INFLUENCE OF THE SOFT PARTS AND CONTENTS OF THE SKULL.

This is another portion of the study of fractures of the skull to which more time ought to be devoted than we can spare now. In a general way, it may be said that the external and internal coverings of the skull—the dura mater and the pericranium, with the muscles, fasciæ, and skin—tend not only to deaden vibrations to such an extent that it is hard to know how to understand many expressions of those who have accepted what is known as the "vibration theory," but also to limit to a moderate extent the changes in shape which the skull may undergo, according to the "bursting theory." The action of the muscles must also be considered of importance, as exemplified in such involuntary and spasmodic contractions as prove sufficient of themselves to break other bones, and which may have more effect here than has yet been suspected. Let us imagine, for example, what might be the effect of a spasmodic contraction of the erector mass at the back of the head when a sudden blow comes upon the anterior part of the vertex, tending to flex the head. I wish it were possible to go further into this inviting field of investigation.

As to the contents of the skull, Fabricius ab Aquapendente attributed fractures by counterstroke to the effort of the air, which he supposed the skull to contain, to escape from its cavity. We know better than this, but it does not seem needless to call attention to the fact that the skull is filled with a much more incompressible material than air. In fact, the brain and its membranes, with the surrounding fluid, completely fill the skull with the most incompressible materials of which we have any knowledge. Under the influence of a blow, this material tends to increase the disruptive force, according to the well known laws of hydrostatics. As a full cask may be burst by a blow, so there can be no doubt the skull may likewise be burst. The statements often made, which affirm or imply that the skull and its contents can be compared to a water bed, are utterly erroneous. The fluid contained in the cranium, in a state of health, is far too little to justify any such comparison. Besides which, it is contained in a firm, unyielding case, while it is indispensable to a water bed that its walls shall be soft and yielding. It has also been intimated—and so able a man as Mr. Hilton thought he had demonstrated—that displacement of the cerebro-spinal fluid could be regarded as a protective against is abundant and more or less turbid The iris presents a sullied, dirty appearance, though not so lustreless as in glaucoma Its fibrillar structure is better preserved The pupil is dilated and round, while in glaucoma it is ovoid in form

In iritis the circumcorneal injection presents a moderately well marked, red color, due to arterial as well as venous injection The cornea is unaffected The anterior chamber is shallower than normal, caused by the thickened condition of the iris The aqueous humor is more or less turbid in consequence of the effused products of inflammation The pupil is somewhat contracted, irregular, and in severe cases adherent posteriorly or anteriorly The iris is thick and swollen, discolored and somewhat nodular

Such are the prominent objective symptoms that may assist in doubtful cases to differentiate between glaucoma, iritis and serous iritis Let the watchword be "atropine in iritis and eserine in glaucoma"

309 Wabash St , cor 3rd, St Paul, Minn

THE MECHANISM OF INDIRECT FRACTURES OF THE SKULL

BY CHARLES W DULLES, M D,

SURGEON TO THE OUTPATIENT DEPARTMENT OF THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA AND OF THE PRESBYTERIAN HOSPITAL IN PHILADELPHIA

(*Continued from page 342*)

ANATOMICAL PECULIARITIES OF THE SKULL

Having now briefly considered the elastic properties of the skull, let us next study its anatomical peculiarities, which, as I have already pointed out, may be expected to modify the results which might be expected if the shape of the skull were regular and its thickness uniform These peculiarities must be given due consideration if we would avoid the error of applying too rigorously the bursting theory, at the same time they must not be over estimated This was the error of Félizet, who was right in attaching great importance to the architectonic conditions of the skull, but who was mistaken in supposing that his buttresses and centre of resistance would stand firm against all or most fractures So Aran, before him, was right in supposing that fractures starting in one fossa of the skull would often be limited to that fossa, but he erred in supposing this could be stated as a general law Both of these theories depended upon what we may call the accidents of fractures of the skull, the essential, I believe—and the future may show that this view may be applied too rigorously—is to be found in the elastic properties of the skull, as revealed not only by the experiments of von Bruns and of his German followers, but also by those of Aran and of Félizet themselves, and by the investigations of others before their time, to whom allusion has already been made in the historical sketch at the beginning of this paper The thinnest portions of the various bones of the skull are as follows

In the frontal bone The walls of the frontal sinuses, the orbital plates, the temporal portions, and sometimes on both sides of the crest for the attachment of the falx cerebri

In the ethmoid bone The horizontal plate (The other parts of the bone may be regarded as outside of the true cranial case)

In the sphenoid bone The orbital portion of the greater wings, and the walls of the sphenoidal sinuses The basilar portion of this bone has a deceptive appearance of strength, on account of its thickness, but on section it will be seen to be of such open cancellated structure that it is not surprising to find that it is very often fractured

In the parietal bones The lower border, just above the parieto squamosal suture, and both of the inferior angles

In the occipital bone The floor of the cerebellar fossæ, and to a less extent the floor of the posterior cerebral fossæ

In the temporal bones I take these bones last because they present some extremely interesting anatomical peculiarities, the importance of which I have not found dwelt upon as I think it ought to be The thinness of the squamous plates is too familiar to need more than mention But the temporal bone is also often very thin over the cotyloid depression for the head of the inferior maxilla The mastoid portion is also sometimes occupied by such large open spaces as materially to weaken its walls The petrous portion does not, on section, present everywhere that solid and rocky appearance to which it owes its name, and which it only partly deserves The roof of the external auditory meatus is sometimes very thin, in a line parallel to and anterior to the superior ridge of the bone The floor of this canal is also comparatively thin The plate of vitreous which covers the anterior inclined plane of the bone is often a mere shell over the promontory above the inferior semicircular canal, and further back, in front of the groove for the superior petrosal sinus, it overlies a mass of honeycombed cancellated tissue which communicates with the large cells of the mastoid process These facts explain the many fractures which are found to run parallel to the crest of this bone, and which have often been wondered at In like manner the curious course which a fracture sometimes takes at right angles to the main axis of the petrous bone may be understood when we study the channels and excavations belonging to the middle and internal ear, the internal auditory meatus, the carotid canal, the groove for the inferior petrosal sinus, and the jugular foramen

These are some of the weak points of the bones of the skull Others might be mentioned, as for example, the antero lateral rim of the foramen magnum, which, in some cases, is very porous, and far from so strong as its thickness would indicate It will be noticed that all of these thin parts of the skull lie in or near the base, and clinical observation shows that they are very frequently the seat of fracture There are a few other anatomical peculiarities of the skull to which I would like to call your attention before I leave a part of our subject which might well occupy much more time than we can spare it First, in regard to the posterior clinoid processes It was long a matter entirely unexplained that violence done to the skull was followed by no fracture, except one breaking off the posterior clinoid processes of the sphenoid bone But the explanation is easy enough if we accept the "bursting theory," and recognize the fact that the tentorium cerebelli is attached in front to these processes, and that when the long diameter of the skull is increased the tense tentorium holds back with an unyielding strain and tears these processes from their attachments to the rest of the bone In this we have both a full explanation of the mechanism of these fractures and a beautiful confirmation of the "bursting theory" of indirect fractures of the skull

Again, I may call attention to the peculiar conditions of the basi-sphenoid and petrous bones These bones are never, I believe, united by bony union or close fitting dentations, like the other bones of the skull Their adjacent surfaces are simply applied against each other and united by a membranous or ligamentous band The plane in which these bones articulate is such that the basi sphenoid is placed like a wedge between the apices of the two petrous bones As a consequence, any force, like a blow on the vertex driving the cranium down upon the spinal column, or a fall upon the buttocks or feet, driving the spinal column up against the cranium will have the effect of forcing the wedge shaped basi sphenoid upward and forward between the two rigid petrous bones, with the frequent result of knocking off one or both of the apices of the latter This form of fracture is another which has excited much surprise and some fanciful explanations, but, in the light of what has just been stated, it seems to me to be quite comprehensible

Finally, I have been struck by the fact that certain peculiar fractures of the base of the skull seem to have been due to support of a segment of the occipital bone furnished by the inclination upward and outward of the articular surfaces of the atlas, which embrace the condyles of the occipital bone and restrain it from rupture to such an extent that a fissure will pass on both sides of the protected region rather than through it This form of fracture is illustrated by a beautiful specimen taken from the Mutter Museum of this College

ARCHITECTONIC PECULIARITIES OF THE SKULL

I cannot now do more than allude to the general oval shape of the skull, its various curves, arches, and buttresses, the comparatively even shape and homogeneous character of the vault, and the irregular shape and varying thickness and thinness of the base, with its prominences and depressions, its channels and its so called sinuses These are too complex to be detailed here, and too familiar to all to make this necessary But I would call your attention to what Felizet has laid so much stress upon, the reinforcement of certain regions, as at the junction of the greater wings of the sphenoid bone with the frontal and temporal bones, and of the petrous portion of the temporal bones with the parietals, at the ridge for the attachment of the longitudinal and lateral sinuses within the skull and at those for the attachment of muscles at the back of the head, which vary in importance in different individuals In addition, we may well bear in mind the comparative roundness of the vault and flatness of the base, and the wedge-like insertion of the lower borders of the parietal bones between the bevelled upper edges of the squamous bones, and the projection of the ends of the petrous bones against the basi sphenoid, of which I have already spoken in detail For most of the points one may consult the works on general and special anatomy, or, better still, the skull itself They all must be considered in studying variations from the result to be expected from the application of any given theory in regard to the mechanism of fractures of the skull, although, as I have said, they need not be expected to controvert any law of general applicability

INFLUENCE OF THE SOFT PARTS AND CONTENTS OF THE SKULL

This is another portion of the study of fractures of the skull to which more time ought to be devoted than we can spare now In a general way, it may be said that the external and internal coverings of the skull—the dura mater and the pericranium, with the muscles, fasciæ, and skin—tend not only to deaden vibrations to such an extent that it is hard to know how to understand many expressions of those who have accepted what is known as the "vibration theory," but also to limit to a moderate extent the changes in shape which the skull may undergo, according to the "bursting theory" The action of the muscles must also be considered of importance, as exemplified in such involuntary and spasmodic contractions as prove sufficient of themselves to break other bones, and which may have more effect here than has yet been suspected Let us imagine, for example, what might be the effect of a spasmodic contraction of the erector mass at the back of the head when a sudden blow comes upon the anterior part of the vertex, tending to flex the head I wish it were possible to go further into this inviting field of investigation

As to the contents of the skull, Fabricius ab Aquapendente attributed fractures by counterstroke to the effort of the air, which he supposed the skull to contain, to escape from its cavity We know better than this, but it does not seem needless to call attention to the fact that the skull is filled with a much more incompressible material than air In fact, the brain and its membranes, with the surrounding fluid, completely fill the skull with the most incompressible materials of which we have any knowledge Under the influence of a blow, this material tends to increase the disruptive force, according to the well-known laws of hydrostatics As a full cask may be burst by a blow, so there can be no doubt the skull may likewise be burst The statements often made, which affirm or imply that the skull and its contents can be compared to a water bed, are utterly erroneous The fluid contained in the cranium, in a state of health, is far too little to justify any such comparison Besides which, it is contained in a firm, unyielding case, while it is indispensable to a water bed that its walls shall be soft and yielding It has also been intimated —and so able a man as Mr Hilton thought he had demonstrated— that displacement of the cerebro-spinal fluid could be regarded as a protective against injury when the skull was struck Mr Hilton's experiment was not free from an important source of error, and one who studies carefully the anatomical peculiarities of the cerebro spinal axis must see, I think, that there is only one way for compensatory diminution in the contents of the skull to take place, namely, by displacement of its contained blood through its natural channels This displacement can and does take place when time is afforded for the process, as in the case of a growing tumor, but the rapidity with which a blow tends to diminish the capacity of the cranium far outstrips the speed with which the blood can escape, so that, as a matter of fact, the skull and its contents may be regarded as the very opposite of a water-bed, and more like a cask filled with fluid which may burst under a sudden increase of the pressure upon the inside of its walls This fact is established not only by a correct knowledge of the physical conditions of the cerebro spinal axis, but also by experiments and observations which I cannot stop to mention now

STUDY OF CASES

A great difficulty confronts at the outset one who tries to discover in how far the study of actual fractures of the skull will bear out any theory in regard to their mechanism which seems plausible The difficulty depends upon the difference between the known factors in an experiment and the unknown factors in an accident It is often impossible in the case of a fracture of the skull, to ascertain exactly the amount and direction of the force, the point to which it was applied, and the conditions of resistance or evasion of the whole cranial box The consideration should lead to a modest and reserved fitting of what seemed to be facts to any theory Nevertheless, nothing can be learned by standing still, and we may, if not over confident, make some advance in knowledge by testing a theory by an observation of what actually takes place With this object in view I have examined the published accounts of a very large number of cases of fracture of the skull, and I have collected more than a hundred (119) in which the details seem to me to be sufficient to warrant an approximative estimate as to the conditions under which the fracture occurred, and as to the results produced

Class A^1 *Fractures caused by blows on the frontal region* Of this class I have only two cases One caused by a kick from a horse above the right eyebrow, causing a direct fracture here, and an indirect meridional and oblique fracture of the parietal bone of the same side The other case presents a fracture caused by a blow with the handle of a pitchfork, high up on the frontal region The fracture is in the base, is meridional, and passes from the right orbital plate through the sphenoid bone and the basilar process of the occipital, leaping across the foramen magnum, from the back edge of which start two converging fissures which meet in the cerebellar fossa on the left side, and above the groove for the lateral sinus

Class A *Fractures caused by falls upon the frontal region* Of these I have thirteen cases Twelve present meridional fissures, five of them being directly longitudinal, three of these passing directly through the whole basi sphenoid bone Seven are oblique, two of them bifurcated, and one passing through the whole basi sphenoid bone, one passes from the point of impact to the lower part of the ridge for the straight sinus, after having passed across the middle of the petrous bone and encircled the foramen magnum One shows a ring fracture, in addition to a meridional fracture from the frontal bone to the junction of the petrous with the basi sphenoid One is directly opposite to the point struck, is extensive and bifurcated

Class B^1 *Fractures caused by blows on the occipital region* Of these I have only two cases One was caused by a spent ball striking the occiput to the left of the middle line, and shows an independent meridional fracture passing alongside of the internal ridge to near the foramen magnum, then crossing the petrous bone, dividing it transversely to its principal axis, and ending in the foramen spinosum The other case is a specimen from one of Perrin's experiments, in which the skull was thrown on a stone pavement covered with a layer of india rubber There is a separation of the coronal suture, and a prolongation of this as a bifurcated fissure in the right squamous bone This specimen shows a division at right angles to the meridian, which may be due to an unusually weak union in the coronal suture, or to some peculiarity of the experiment I have included this specimen among my drawings, because it is diametrically opposed to the bursting theory But I think an experiment which involves throwing a skull detached from the body cannot be considered very reliable in comparison with those in which the skull is fixed

Class B *Fractures caused by falls, striking upon the occipital region* Of these I have twenty one cases All show meridional fractures Two of these pass directly through the crest for the lodgment of the straight sinus to the foramen magnum One passes to the foramen magnum near this crest Two pass through the whole of one side of the occipital bone, and one splits off a piece of the parietal, and separates the lambdoid suture in part One divides the frontal bone into halves Six pass round the foramen magnum on one side, three dividing the petrous bone longitudinally and one transversely One shows a longitudinal fracture passing across the foramen magnum and dividing the basi sphenoid bone, as well as a partial ring fracture In two the fracture passes meridionally round the side of the head One shows an independent fissure on each side, in the parietal bones

Class B^3 *Fractures due to blows on both the forehead and occiput* One such case I have found recorded by Herpin, in which there was a succession of bumps on each of these parts The resulting fracture is a long fissure, passing longitudinally from the internal occipital protuberance to the foramen cæcum, passing round the foramen magnum, very close to it, and dividing the whole of the basi sphenoid, a beautiful meridional fissure

Class C^1 *Fractures caused by compression in a longitudinal direction accidental* Hewitt records two cases of this sort In the first, a man fell on the back of his head, and a piece of timber fell on his forehead The fissure is independent, and partly meridional It divides longitudinally the middle of the horizontal plate of the ethmoid bone and the middle of the body of the sphenoid bone, passing then to the right through the greater wing of this bone, and bifurcating before passing in two fissures upon the squamous plate of the temporal bone In the second, the history is far from clear, but it seems that the fracture was caused by the compression of a cartwheel passing across the forehead The fracture is meridional and exactly like several in the next class

Class C^2 *Fractures caused by a compression in a longitudinal direction experimental* Of these I have nine cases Six show meridional fissures One divides the skull from front to back over the vault Three divides the skull to an equal extent through the base, passing round the foramen magnum In two there are two independent fissures In one of these cases one of the two fissures is not meridional Three of the cases show complicated fissures which may be due more to crushing than to bursting

Class D^1 *Fractures from blows on the parietal region* Of these I have only four cases All show meridional fissures Three pass straight down to the apex of the petrous bone, and one passes also up to the vertex

Class D *Fractures caused by falls striking on the parietal region* Of these I have fifteen cases, in all of which I think the fractures may be considered meridional Four pass along the horizontal equator of the skull Seven are transverse, three crossing the base from side to side, two going half way across, one involving only the ends of the petrous bone, and one passing across the vault at the back part of the parietal bones, and then passing forward to the base Four are diagonal, two of them passing the sella turcica

Class E^1 *Fractures caused by compression in a transverse* *direction accidental* Of these I have five cases In all, the fractures are transverse and meridional Two pass across the basi sphenoid bone and upward on both squamous bones In one both parietal bones are split independently, the fissures passing down through the petrous bone In one the coronal suture was separated, and a piece broken out of each parietal, beside an independent fracture of the occipital and petrous bones at the base on one side

CLASS E *Fractures caused by compression in a transverse direction experimental* Of these I have five cases In all the fissures are transverse and meridional In four the basi sphenoid is divided transversely, and in three the fissure involves also the temporal bones In one case the coronal suture is disarticulated

CLASS F *Fractures caused by falls striking on the temporo frontal region* Of these I have only two cases In one the fracture is meridional, in the other it is equatorial, and seems to illustrate the shoving of the posterior half of the skull over the anterior half by the impact of the spinal column on the base in an oblique direction

CLASS G *Fractures caused by compression in a diagonal direction experimental* Of these I have five cases In four the fissures are meridional, two being quite complicated In one case there is a separation of the posterior inferior angle of the parietal bone, and the dorsum of the sella turcica is broken off

CLASS H^1 *Fractures caused by blows on the vertex accidental* Of these I have six cases In all the fractures are meridional, in five they are transverse and in one longitudinal

CLASS H^2 *Fractures caused by blows on the vertex experimental* Of these I have three cases All of them show beautiful meridional fissures, one transverse and two longitudinal, one of the latter dividing the skull completely into halves

CLASS H^3 *Fractures caused by falls upon the vertex accidental* Of these I have seventeen cases In all the fissures are meridional and can, I think, be attributed to a burst In one the front half of the skull is divided longitudinally, and in one the posterior half is similarly divided In one the fissure divides the skull into halves longitudinally, in two it divides it into halves transversely In one the basilar artery was found caught in a transverse fissure of the basilar process of the occipital bone

CLASS J^1 *Fractures caused by falls upon the condyles (transmitted from feet accidental* Of these I have only three cases In two both posterior clinoid processes were broken off—which can be attributed to the lengthening of the antero posterior diameter of the skull—and there was a transverse fracture of the apex of the petrous bone In the third case there is only a longitudinal fissure of the horizontal plate of the ethmoid bone on one side

CLASS J *Fractures caused by blows on the condyles experimental* Of these I have four cases In all of them the dorsum of the sella turcica has been torn off by the elongation of the antero posterior diameter of the skull In two cases this is the only fracture In one case the whole base is also divided transversely, the fissure passing across the basilar process of the occipital bone In one case there are also three independent fissures, all transverse

CONCLUSION

The analysis of these 119 cases shows that 111 present fissures which correspond to what might be expected from an application of the principles of the "bursting theory," and only eight seem to contradict it This result, which has surprised me by its apparent completeness, seems to establish this theory by the best test which we can apply to it, so that it appears to rest upon a very firm tripod of reasoning, experiment, and clinical observation

I trust it will not be supposed that, in making so much of the bursting theory in this paper, I have overlooked the fact that there are fractures which cannot be accounted for by it There are some fractures in which the force applied is so great, and acts in such a manner, that the skull is crushed so as to hide any evidence of the play of its elastic properties, the fracture being of a comminuted sort, and there are others in which, as I have noted in passing, one segment of the skull seems to be shoved over the other by forces of pressure and counter-pressure which require some study before their mode of operation can be understood In this connection it is of importance to learn in any case the position which the skull has held in relation to the spinal column or to any body capable of exerting counter pressure No less is it important not to overlook the counter-pressure which is caused by the simple *vis inertiæ* of the skull, and its contents

But it would be impossible to speak of all the influences which may modify the strict application of any one theory in regard to fractures of the skull I have laid before you all the evidence which I now can in regard to this matter, and I must close with the expression of my own conviction that the supreme law governing the production of indirect fractures, is that which depends upon the fact that the skull is practically a hollow elastic case, approximately oval in shape, and which may be briefly formulated as follows When a sufficient force is applied to any curvilinear part of the skull, if this part do not give way immediately, the axis of the skull lying in the same line as that of the applied force is shortened, all the axis lying in planes at right angles to this line are correspondingly lengthened, with a proportional lengthening of their circumferences, and separation of their meridians, so that the direct depressing force is converted into an indirect disruptive force acting at right angles to the direction of the former The effect is to produce a fissure, or fissures, which will have a general meridional direction

The application of this law is subject to certain modifications due to the anatomical and architectonic peculiarities of the skull, its coverings and contents, and to certain exceptions due to the amount and velocity of the force applied as well as to the coming into play of peculiar counter forces

DR AGNEW remarked The paper just read is very interesting, and on a very interesting subject I must say, however, that I cannot agree with Dr Dulles as to the mode of fracture—the elasticity of the skull is too insignificant I still hold to the old vibratory theory I satisfied myself of the correctness of this by experimenting with ivory balls, suspended in such a manner as to touch different parts of the skull and watching the effect on these balls when the cranium was struck Fractures of the skull, in the vast majority of instances—when the force is concentrated on a very limited surface—occurs at the point of impact The force which gives rise to fractures at the base is usually a diffused one, and if applied at the vault of the skull travels to the base by the shortest route, the vibrations concentrating or focusing on certain fossæ in nearest relation with the seat of the applied violence

DR PACKARD said It seems to me that there are two points not mentioned by Dr Dulles which can hardly be left out of the account in considering the subject of these fractures One is the direction of the bony fibres—the intimate structure of the bones, as distinct from their mere shape The other is the momentum of the fracturing force Some ten years ago I reported a case in which a man was struck by a locomotive moving at such a speed that he was carried along in front of it for a distance of forty feet before he was flung over to the other track, receiving, among other instantly fatal injuries, a fracture which completely separated his skull into two portions, an anterior and a posterior Between such terrific violence as this and the blows or falls which are the usual causes of fracture of the skull, there are, of course, innumerable gradations, with corresponding influences on the lesions produced

Dr Dulles said It would not be possible to prepare a paper of the kind which I have presented this evening in such a way as to meet in advance all the objections which might be raised in regard to it, neither would it be possible in the time at our disposal for disscussion to answer all such objections I would only say briefly, that all that is claimed for the "bursting theory" is, that it seems to account for a very large number of indirect fractures Experience alone can determine the reliability of any theory, and while I have become convinced of the correctness of this one, time will decide the matter

In answer to the objection raised by Dr Formad, I would like to say that it is not really an objection, but rather supports the "bursting theory" The fractures passing horizontally, of which he speaks, are just as much meridional as though they passed vertically As I show you on this skull, any line passing round the surface in the shortest direction from pole to pole—that is, from the point of impact to the antipodal point, is meridional, and the line passing horizontally is as much meridional as any

Finally, in regard to the case about which Dr Formad asked a question, I would say that I do not now recall a single instance of the many which I have investigated, in which a stellate fracture was not a direct fracture, and I believe such an appearance is an indication that the fracture was caused by violence applied at that very spot This violence, of course, may be due to a blow on the point where the fracture appears, or to a fall in which the head strikes some resisting body at this point

PYOGENIC CYSTS AFTER OPERATION FOR FISTULA IN ANO

BY GEO N MONETTE, M D,

OF NEW ORLEANS LA

Resultant upon operations performed for fistula in ano, I have had under my observation two cases presenting localized pyogenic cysts I say cysts, because of the fact that, for a certain length of time, the secretion was not apparent, and when the cystic calibre was exhausted, there would be a flow of pus for several days, until it became encysted again Since both of these cases were operated upon by incision, I have been constrained to express a preference for the *ligature* in the destruction, curatively, of fistulous canals

The incised canal, with its continuity severed, is prone to heal too quickly to perfect the destruction of the pyogenic surface of the canal On the other hand, the ligature, being drawn taut, approximates the internal and external orifices at once, strangulates, and apparently makes a deep fistulous canal seem to be a superficial one Granulations supply the underlying pyogenic membrane with such rapidity that the same is readily detached, brought or pushed to the surface, and destroyed more completely

One of the cases I operated upon myself by incision, the wound healing, and apparently my patient was cured radically A cyst was superficially located on the nates, near the outlet of the canal, which had no connection with the rectum, nor was it deep in the muscular structures It was made manifest to me at once, that the source of this was in a portion of the pyogenic canal not having been completely destroyed by the operation, which is due to no fault of the operator, but to a tenacity of life in the pyogenic membrane forming the fistulous canal, which soon organizes, becomes encysted, and produces pus and develops into a cyst

The second case was operated upon by another physician (since deceased), with identical complications I probed the depth of this case, and found that the cavity was one fourth of an inch only, and of course not having any connection with the rectal canal, nor communicating with any remote pyogenic surface, membrane or canal

The treatment of such cases is patent first, we can but destroy the pyogenic surface by cauterization, thereby promoting granulation, filling up the cavity until the continuity of the integument is reestablished

A CASE OF URINARY UMBILICAL FISTULA THROUGH A PATENT URACHUS

BY J H YARNALL, M D,

OF GEORGETOWN, D C

Every physician now and then is confronted with anomalous constructions of various parts and organs of the human body, and which are always of more or less interest to the medical student Especially are these irregularities interesting when the anomaly is striking and rare, and then do they become worthy of record by adding to the curiosities of medical experience

I was called, on December 10, to see Joseph W, a colored infant about five weeks old, who, as the father reported, "was passing his water through his belly," and on close inspection such I found was literally the truth, for with every cry and struggle of the child, urine oozed through the umbilicus The child had been born at full term, and was of good size and well nourished, but since its birth its mother had noticed that it was impossible to keep the child clean and dry, and on closer inspection she observed that water would dribble from the umbilicus, and at times would a large stream be thrown out All doubt to my mind as to whether the urethra was pervious or no, was soon dissipated by a copious stream *per vias naturales* It was very obvious from these conditions, that the fibro muscular ligament passing from the fundus of the bladder to the umbilicus, and known as the urachus, had persisted in its fœtal form of a duct The umbilicus itself was slightly hypertrophied and indurated, and also excoriated, as was also the surrounding integument to a less degree Upon the umbilicus was a small, dark red, conical-shaped tumor, with its apex external, and it was from a small discernible orifice in this apex that the urine was passed I was able to pass through this opening a small gum catheter, in the direction of the linea alba, and into the bladder

On questioning the midwife who presided at the birth of this child, she informed me that the cord was larger than usual, and that it appeared to consist of two portions, separated by a web, and that it did not separate readily, and when separation occurred the little conical tumor was left, through which the urine was passed

The treatment applied was very simple, and the desired result quickly attained At first pressure was made over the umbilicus by large cork, held in position by a bandage of adhesive plaster, this was left on for three days, and during this time the urine continued to well around the cork I then applied sulphate of copper thoroughly over the surface of the tumor, and continued the pressure by bandage, and after three more applications of the caustic had the pleasure, two weeks after my first visit, of seeing the urine passed wholly through its proper canal, and the umbilicus resume its normal appearance

Dr Guéniot,[1] in a summary of seven cases of patient researches, one of which occurred in his own practice, shows that the treatment of all these cases by pressure and caustics alone, was futile, and in the three in which a cure was obtained the ligature around and through the tumor was used Dr R G Cabell,[2] of Virginia, reported a case of this deformity shown him as a curiosity, of a mulatto girl of fifteen years, and he says she "experienced no uneasiness or inconvenience from this unnatural passage to her bladder," for "she could at her pleasure evacuate urine by either channel "

The last case which I have seen recorded was by Dr Charles B Waller,[3] of the Rotherham Hospital, Yorkshire, England The patient was a male child five months old, and through the urachus he was able to pass a No 8 silver catheter The treatment pursued was the dissecting out of the urachus, ligating, dividing and dropping the end into the abdominal cavity After slight febrile disturbance the patient was discharged cured, on the sixteenth day after entering the hospital Previous to the operation pressure and caustics had been tried without effect In conclusion, I would state that I report my case simply as a remarkable vagary of nature

MEDICAL PROGRESS

URETHAN AND HYPNONE —Urethan is the æthylic ether of carbaminic acid, and its chemical composition may be represented by the formula $C_3H NO$ Fortunately, it has no odor and no disagreeable taste It may be obtained in beautiful white crystals, which are freely soluble in water Its action on man has been investigated by Jolly, Kobert, and von Jaksch, of Vienna Von Jaksch's observations were made on twenty patients suffering from various forms of insomnia His first experiments were with doses of ¼ of a gramme, or about 4 grains, but this was insufficient to produce any distinct hypnotic action He then increased the dose to nearly 8 grains, and found that this usually sufficed to produce several hours' good sound sleep In a patient suffering from hemiplegia associated with disease of the mitral valve, whose general condition contra indicated the employment of morphine or chloral, it answered admirably, giving a good night's rest without any disagreeable after effects Another patient, suffering from a painful aortic aneurism with persistent insomnia, was given a dose at 6 P M , with little or no effect, whilst another dose administered at 11 P M , gave calm refreshing sleep until 3 the next morning Dr von Jaksch made over one hundred observations with the drug, and is enthusiastic in its praise It proved most successful in simple uncomplicated cases, and was of comparatively little value when the patient suffered from acute pain He states that it is particularly suitable for administration to children, the absence of disagreeable taste being a very great advantage A short time since, Dr Sundby, of Birmingham, recorded two cases of cardiac insomnia treated successfully by two grain doses of urethan, given at bedtime in solution in water One of these was a case of aortic and mitral incompetence, with conjestion of the lungs, hæmoptysis, pleural effusion, and œdema of the legs The patient, as soon as he fell asleep, awoke with a dreadful feeling of suffocation, and for three nights had little or no rest, but subsequently, with the aid of urethan, he slept well and his condition greatly improved The other case was one of cardiac dilatation, with mitral incompetence, the heart's action being very feeble and irregular The patient had not slept for many nights, but urethan produced the desired effect, and she soon slept soundly

DR A S MYRTLE says Since October, I have been using urethan in a variety of cases with satisfactory results I have used it in over fifty cases as a sedative and hypnotic, and my experience of its action encourages me to recommend the drug to the readers of the *British Medical Journal*, believing that, in certain cases, it will prove of great value The cases in which I have prescribed it were of the usual run of every day practice, where a sedative or hypnotic was required, general restlessness, sleeplessness, neuralgia, catarrh, certain forms of skin affections with great irritation, also rheumatism and gout Many of my patients had some peculiarity of constitution which prevented the use of opiates of the usual type, and it is in this special class that I think urethan will prove of great value One gentleman, who had suffered from insomnia for weeks, and who cannot tolerate opium or chloral, took 15 grains at bedtime with the most perfect result He wrote to me and said, "The sleep caused was the most pleasant and momentum of the fracturing force Some ten years ago I reported a case in which a man was struck by a locomotive moving at such a speed that he was carried along in front of it for a distance of forty feet before he was flung over to the other track, receiving, among other instantly fatal injuries, a fracture which completely separated his skull into two portions, an anterior and a posterior Between such terrific violence as this and the blows or falls which are the usual causes of fracture of the skull, there are, of course, innumerable gradations, with corresponding influences on the lesions produced

---

[1] Bulletin Général de Thérapeutique Médicale et Chirurgicale Paris 1872 Article Des fistulis urinaires de l ombilic dues à la persistance de l ouraque et du traitment qui leur est applicable "

[2] American Journal of Medical Sciences 1848

[3] Medical Bulletin Philadelphia December 1885

Dr Dulles said It would not be possible to prepare a paper of the kind which I have presented this evening in such a way as to meet in advance all the objections which might be raised in regard to it, neither would it be possible in the time at our disposal for disscussion to answer all such objections I would only say briefly, that all that is claimed for the "bursting theory" is, that it seems to account for a very large number of indirect fractures Experience alone can determine the reliability of any theory, and while I have become convinced of the correctness of this one, time will decide the matter

In answer to the objection raised by Dr Formad, I would like to say that it is not really an objection, but rather supports the "bursting theory" The fractures passing horizontally, of which he speaks, are just as much meridional as though they passed vertically As I show you on this skull, any line passing round the surface in the shortest direction from pole to pole—that is, from the point of impact to the antipodal point, is meridional, and the line passing horizontally is as much meridional as any

Finally, in regard to the case about which Dr Formad asked a question, I would say that I do not now recall a single instance of the many which I have investigated, in which a stellate fracture was not a direct fracture, and I believe such an appearance is an indication that the fracture was caused by violence applied at that very spot This violence, of course, may be due to a blow on the point where the fracture appears, or to a fall in which the head strikes some resisting body at this point

PYOGENIC CYSTS AFTER OPERATION FOR FISTULA IN ANO

BY GEO N MONETTE, M D,

OF NEW ORLEANS, LA

Resultant upon operations performed for fistula in ano, I have had under my observation two cases presenting localized pyogenic cysts I say cysts, because of the fact that, for a certain length of time, the secretion was not apparent, and when the cystic calibre was exhausted, there would be a flow of pus for several days, until it became encysted again Since both of these cases were operated upon by incision, I have been constrained to express a preference for the *ligature* in the destruction, curatively, of fistulous canals

The incised canal, with its continuity severed, is prone to heal too quickly to perfect the destruction of the pyogenic surface of the canal On the other hand, the ligature, being drawn taut, approximates the internal and external orifices at once, strangulates, and apparently makes a deep fistulous canal seem to be a superficial one Granulations supply the underlying pyogenic membrane with such rapidity that the same is readily detached, brought or pushed to the surface, and destroyed more completely

One of the cases I operated upon myself by incision, the wound healing, and apparently my patient was cured radically A cyst was superficially located on the nates, near the outlet of the canal, which had no connection with the rectum, nor was it deep in the muscular structures It was made manifest to me at once, that the source of this was in a portion of the pyogenic canal not having been completely destroyed by the operation, which is due to no fault of the operator, but to a tenacity of life in the pyogenic membrane forming the fistulous canal, which soon organizes, becomes encysted, and produces pus and develops into a cyst

The second case was operated upon by another physician (since deceased), with identical complications I probed the depth of this case, and found that the cavity was one fourth of an inch only, and of course not having any connection with the rectal canal, nor communicating with any remote pyogenic surface, membrane or canal

The treatment of such cases is patent first, we can but destroy the pyogenic surface by cauterization, thereby promoting granulation, filling up the cavity until the continuity of the integument is reestablished

A CASE OF URINARY UMBILICAL FISTULA THROUGH A PATENT URACHUS

BY J H YARNALL, M D,

OF GEORGETOWN D C

Every physician now and then is confronted with anomalous constructions of various parts and organs of the human body, and which are always of more or less interest to the medical student Especially are these irregularities interesting when the anomaly is striking and rare, and then do they become worthy of record by adding to the curiosities of medical experience

I was called, on December 10, to see Joseph W, a colored infant about five weeks old, who, as the father reported, "was passing his water through his belly," and on close inspection such I found was literally the truth, for with every cry and struggle of the child, urine oozed through the umbilicus The child had been born at full term, and was of good size and well nourished, but since its birth its mother had noticed that it was impossible to keep the child clean and dry, and on closer inspection she observed that water would dribble from the umbilicus, and at times would a large stream be thrown out All doubt to my mind as to whether the urethra was pervious or no, was soon dissipated by a copious stream *per vias naturales* It was very obvious from these conditions, that the fibro muscular ligament passing from the fundus of the bladder to the umbilicus, and known as the urachus, had persisted in its fœtal form of a duct The umbilicus itself was slightly hypertrophied and indurated, and also excoriated, as was also the surrounding integument to a less degree Upon the umbilicus was a small, dark red, conical shaped tumor, with its apex external, and it was from a small discernible orifice in this apex that the urine was passed I was able to pass through this opening a small gum catheter, in the direction of the linea alba, and into the bladder

On questioning the midwife who presided at the birth of this child, she informed me that the cord was larger than usual, and that it appeared to consist of two portions, separated by a web, and that it did not separate readily, and when separation occurred the little conical tumor was left, through which the urine was passed

The treatment applied was very simple, and the desired result quickly attained At first pressure was made over the umbilicus by large cork, held in position by a bandage of adhesive plaster, this was left on for three days, and during this time the urine continued to well around the cork I then applied sulphate of copper thoroughly over the surface of the tumor, and continued the pressure by bandage, and after three more applications of the caustic had the pleasure, two weeks after my first visit, of seeing the urine passed wholly through its proper canal, and the umbilicus resume its normal appearance

Dr Guéniot,[1] in a summary of seven cases of patient researches, one of which occurred in his own practice, shows that the treatment of all these cases by pressure and caustics alone, was futile, and in the three in which a cure was obtained the ligature around and through the tumor was used Dr R G Cabell,[2] of Virginia, reported a case of this deformity shown him as a curiosity, of a mulatto girl of fifteen years, and he says she "experienced no uneasiness or inconvenience from this unnatural passage to her bladder," for "she could at her pleasure evacuate urine by either channel "

The last case which I have seen recorded was by Dr Charles B Waller,[3] of the Rotherham Hospital, Yorkshire, England The patient was a male child five months old, and through the urachus he was able to pass a No 8 silver catheter The treatment pursued was the dissecting out of the urachus, ligating, dividing and dropping the end into the abdominal cavity After slight febrile disturbance the patient was discharged cured, on the sixteenth day after entering the hospital Previous to the operation pressure and caustics had been tried without effect In conclusion, I would state that I report my case simply as a remarkable vagary of nature

MEDICAL PROGRESS

URETHAN AND HYPNONE —Urethan is the ethylic ether of carbaminic acid, and its chemical composition may be represented by the formula C_3H_7NO Fortunately, it has no odor and no disagreeable taste It may be obtained in beautiful white crystals, which are freely soluble in water Its action on man has been investigated by Jolly, Kobert, and von Jaksch, of Vienna Von Jaksch's observations were made on twenty patients suffering from various forms of insomnia His first experiments were with doses of ¼ of a gramme, or about 4 grains, but this was insufficient to produce any distinct hypnotic action He then increased the dose to nearly 8 grains, and found that this usually sufficed to produce several hours' good sound sleep In a patient suffering from hemiplegia associated with disease of the mitral valve, whose general condition contra indicated the employment of morphine or chloral, it answered admirably, giving a good night's rest without any disagreeable after effects Another patient, suffering from a painful aortic aneurism with persistent insomnia, was given a dose at 6 P M, with little or no effect, whilst another dose administered at 11 P M, gave calm refreshing sleep until 3 the next morning Dr von Jaksch made over one hundred observations with the drug, and is enthusiastic in its praise It proved most successful in simple uncomplicated cases, and was of comparatively little value when the patient suffered from acute pain He states that it is particularly suitable for administration to children, the absence of disagreeable taste being a very great advantage A short time since, Dr Sundby, of Birmingham, recorded two cases of cardiac insomnia treated successfully by two-grain doses of urethan, given at bedtime in solution in water One of these was a case of aortic and mitral incompetence, with conjestion of the lungs, hæmoptysis, pleural effusion, and œdema of the legs The patient, as soon as he fell asleep, awoke with a dreadful feeling of suffocation, and for three nights had little or no rest, but subsequently, with the aid of urethan, he slept well and his condition greatly improved The other case was one of cardiac dilatation, with mitral incompetence, the heart's act on being very feeble and irregular The patient had not slept for many nights, but urethan produced the desired effect, and she soon slept soundly

DR A S MYRTLE says Since October, I have been using urethan in a variety of cases with satisfactory results I have used it in over fifty cases as a sedative and hypnotic, and my experience of its action encourages me to recommend the drug to the readers of the *British Medical Journal*, believing that, in certain cases, it will prove of great value The cases in which I have prescribed it were of the usual run of every day practice, where a sedative or hypnotic was required, general restlessness, sleeplessness, neuralgia, catarrh, certain forms of skin affections with great irritation, also rheumatism and gout Many of my patients had some peculiarity of constitution which prevented the use of opiates of the usual type, and it is in this special class that I think urethan will prove of great value One gentleman, who had suffered from insomnia for weeks, and who cannot tolerate opium or chloral, took 15 grains at bedtime with the most perfect result He wrote to me and said, "The sleep caused was the most pleasant and refreshing I awoke without a headache, with appetite for breakfast, and what was equally agreeable, there was no interruption to any of my functions" Similar testimony has been given by the majority of patients, who have taken full doses to produce sleep In smaller doses, its action is less marked, still it is decidedly calmative and agreeable, causing no unpleasant effect, such as nausea, flatulence, constipation or headache It does not effect the nerve-centres of circulation or respiration, but spends itself on the cerebrum It possesses, therefore, great advantages the older and valuable sedatives, which have certain evil influences, especially in exceptional cases Given in gout and rheumatism in full doses, alone or in combination, it has the great advantage over morphia of not interfering with the action of the bowels or kidneys, besides, it is not unpleasant to the taste, the only objection to it is its price, although that has been reduced 50 per cent since I gave my first dose three months ago

---

[1] Bulletin Général de Thérapeutique Médicale et Chirurgicale Paris 1872 Article Des fistulis urinaires de l ombilic dues à la persistance de l ouraque et du traitment qui leur est applicable '

[2] American Journal of Medical Sciences 1848

[3] Medical Bulletin Philadelphia December 1885

For the other new hypnotic, we have to thank Dr Dujardin-Beaumetz, who recently submitted to the Académie de Médicine of Paris the results of a series of observations on aceto phenone, or as it is more commonly called, hypnone This compound is prepared by the action of chloride of benzoyl on zinc methyl, or by distilling together a mixture of benzoate and acetate of calcium It is a colorless mobile liquid, having an odor not unlike oil of bitter almonds or cherry laurel water It has a very decided physiological action, for a cubic centimètre injected under the skin of a guinea pig produced a torpid comatose condition, from which the animal did not recover The respiration was quickened, the heart-beats became fewer in number, the animal started convulsively, gradually grew colder, and died To produce sleep, it should be given in doses of from 2 to 16 minims, and, if administered at bedtime, it uniformly produces a well marked hypnotic action It may be diluted with alcohol, ether, glycerine, but the best way to give it is in capsules It communicates to the breath a somewhat disagreeable odor, but its taste may be masked by syrup of orange flower or oil of sweet almonds Dr Dujardin-Beaumetz's observations have been fully confirmed both by Dr Constantine Paul and by Dr Huchard —*British Medical Journal*, February 20 1886

LEAD POISONING —DR SINCLAIR WHITE, the medical officer of health for Sheffield, has recently published an excellent and interesting report on the action of the Sheffield water on the lead communication pipe and its effects on the health of the community A number of cases of chronic lead poisoning occurred during last year amongst persons not engaged in any of the trades in which lead is used, analysis showing that the drinking-water in every case contained a sufficient amount of lead to account for the poisoning An examination of the water-supply led to the fact becoming known that the water of only some parts of the town contained lead to any appreciable extent Sheffield derives its water from two distinct sources, with separate systems of distribution, the first is from the hills around Redmires, which is collected in reservoirs near its origin, and and runs in a conduit to a reservoir at Crooke, known as Hadfield Reservoir, whence it is distributed to certain high lying districts, the other source is from the hills around Strines and Agden, which runs in a conduit to a reservoir known as Godfrey Reservoir, and is thence distributed to the two low lying parts of the town The persons who suffered from lead poisoning resided in the high lying districts The Redmires water is collected from moorland, the surface peat varying in thickness from a few inches to several feet, and beneath this are shale and mill stone grit of the carboniferous system of rocks, both the peat and the shale contain iron pyrites, and the water was distinctly acid in reaction, the acidity being most intense in the higher portion of the collecting grounds The Strines and Agden water was not acid The cause of acidity in the Redmires water was the subject of careful investigation, and it was found possible that this had resulted, firstly, from the action of soft water on the iron pyrites, giving origin to free sulphuric acid, secondly, from ulmic and humic acids, which are caused by the decomposition of vegetable substances, thirdly, from the atmosphere, which contains large quantities of sulphurous acid, the result of the large consumption of coal in the town Assuming that the first two possible causes had been in force, the impregnation of the Redmires water is explained on the ground that this neighborhood contains iron pyrites, while the water from Strines and Agden, from containing more alumina, which would neutralize the acid, would give less evidence of the presence of free acid A further analysis of water taken from sources where the water had passed through new and old lead pipes showed the former contained a much larger amount of lead than the latter, the former containing from 0 14 to 0 61 grain per gallon, whereas the latter contained from 0 14 to 0 42 grain per gallon Again, long pipes led to greater pollution of the water than short ones, and the length of time the water had stood in the pipes was also directly related to the amount of lead contained The report ends with a statement of the results of filtration carbon and spongy iron filters removing all traces of lead —*Lancet*, March 13, 1886

LEAD POISONING BY HOUSEHOLD UTENSILS —The German Parliament has now under consideration a Bill which is intended to regulate the employment of lead in the manufacture of cooking and other domestic utensils, and so to diminish the risk of poisoning by that metal The provisions of this measure certainly do not err on the side of leniency They forbid the use of vessels containing more than 10 per cent of lead in their composition for the above purposes No alloy with over 1 per cent may be used in coating iron articles used in cookery Solder may consist of lead to one tenth of its amount, but no more Enamels into which lead enters are treated with equal stringency The effect of this Bill, if it be passed, will be to obliterate the legal existence of pewter and of soft solder as at present made, since these alloys contain from one half to one-fourth of their weight of lead One fact which it brings into prominence is that lead-poisoning in Germany appears to arise from other causes besides those to which it is commonly attributed in this country Cases of this kind among ourselves are usually found in the persons of those who are actually engaged in handling lead or its compounds in their daily occupation Plumbers, painters, glass blowers, glaziers, potters and enamel-card makers furnish the majority of those who suffer from plumbism When this disorder appears in the household, new paint in the walls or the lead work of the water service affords a clue to its detection It is comparatively rare to find in these days that pewter pots or cooking utensils are at fault This may be because glass is used on the whole far more frequently than pewter in the liquor trade, while in the kitchen those vessels the contents of which are most likely to become contaminated with lead in the solder—such, for example, as preserving pans—are usually made of brass or copper (which is kept well burnished), and present a relatively trifling soldered surface, or are lined with porcelain The water used in cooking also acts as a protective, since the lime salts contained in it tend to prevent the solution of lead The proposed German legislation on this subject is very perfect in theory so far as it goes Possibly it may be called for by the teaching of experience In this country it would probably be found to be needlessly severe, and would not cover the chief causes of the evil which it is intended to meet We do not see how it can do this even in Germany, unless measures of equal rigor be adopted to control the use of lead in manufactures and in its other domestic applications The introduction of these further restrictions might fitly exercise the judgment of our own as well as foreign legislators —*Lancet*, February 13, 1886

THE TREATMENT OF OLD CORNEAL OPACITIES —In the last number of *Archiv fur Ophthalmologie*, Dr Dantziger advocates the treatment of old opacities of the cornea by friction performed daily, and continued for two or three months if necessary When the opacity is of moderate size, but of considerable density, it is recommended that it should first be scraped away, and the friction, or "massage," commenced as soon as the epithelium has been reformed The scraping is performed with a Graefe's knife, used in the manner in which one scrapes away a blot with a penknife Antiseptic precautions are used, and iodoform is applied as a dressing, cocaine produces sufficient anæsthesia Atropine and warm fomentations are used if the reaction be very great, by the fifth to the eighth day the epithelium has generally been reproduced, and the "massage" is then commenced A minute piece of Pagenstecher's ointment is introduced, and the upper lid is then moved from side to side over the cornea with the fore finger, with a rapid to and fro movement, for about half a minute Some hyperæmia is produced, which should not last more than a few minutes, if it last as long as half an hour, the treatment must be used cautiously, and may have it to be abandoned The author gives a detailed account of ten cases, in four of which the friction was preceded by scraping With the exception of three, all were opacities which had existed in a stationary condition for more than three years, and in all except one (in which the whole cornea presented a greyish opacity) there was a very great improvement in vision, sometimes without any obvious clearing of the cornea An improvement from $\frac{20}{200}$ to $\frac{20}{60}$ in three months would, perhaps, about represent the average result of the cases, but in some it was much better Those who know how very intractable these cases are under ordinary treatment, will welcome any method which offers a reasonable prospect of ameliorating their condition, and should these results be borne out by wider experience, a very valuable addition will have been made to the resources of ophthalmic surgery —*British Medical Journal*, February 20, 1886

SALICYLATE OF LITHIUM IN RHEUMATISM —VULPIAN read before the Paris Academy of Medicine recently a paper in which he claimed certain advantages of salicylate of lythium over the salicylate of sodium We abstract without comment some of the principal points of his paper, as found in the *Deutsche Medizinal Zeitung* of January 14, 1886

In spite of the acknowledged specific influence which salicylate of sodium exercises over the rheumatic process in general, every practitioner has met cases which proved absolutely refractory to this medication In some forms of rheumatism, such as the gonorrhœal, in the subcutaneous articular and chronic articular, the sodium salt has little if any power In these forms the salicylate of lithium has, in the hands of Vulpian, given fair results, and proven by all means superior to the salicylate of sodium Wherever the fibrous tissues are first and prominently affected, the lithium salt appears to act better In some chronic cases, in which the sodium salt had been exhibited for a long time without the slightest effect, salicylate of lithium gave relief in ten to fourteen days, removing pain, swelling and functional disturbance Improvement was also obtained in some very advanced cases marked by semi anchylosis and deformities The salt is easily soluble in water, has an agreeable taste, and may be given in doses of 7 grains The daily ingestion ought not to exceed 1 drachm The drug is, however, by no means free from unpleasant after effects, though patients who were treated by both the sodium and the litheum salt gave the latter the preference —*Therapeutic Gazette*, March 15, 1886

NERVOUS TROUBLES IN SLOW MERCURIAL INTOXICATION —1 Slow mercurial poisoning gives rise to a certain number of nervous troubles which constitute the greater part of its symptomatology

2 These nervous troubles can be attributed, in part, to the presence of mercury in the nervous centres, where it has frequently been found, and in part to lesions of the cerebro spinal system, which have been described by Wising One of the most curious characteristics of these lesions is the persistence of the axis cylinder in the altered regions This last condition is found in the lesions of sclerosis in plaques, which, moreover, in its clinical features

refreshing I awoke without a headache, with appetite for breakfast, and what was equally agreeable, there was no interruption to any of my functions" Similar testimony has been given by the majority of patients, who have taken full doses to produce sleep In smaller doses, its action is less marked, still it is decidedly calmative and agreeable, causing no unpleasant effect, such as nausea, flatulence, constipation or headache It does not effect the nerve-centres of circulation or respiration, but spends itself on the cerebrum It possesses, therefore, great advantages the older and valuable sedatives, which have certain evil influences, especially in exceptional cases Given in gout and rheumatism in full doses, alone or in combination, it has the great advantage over morphia of not interfering with the action of the bowels or kidneys, besides, it is not unpleasant to the taste, the only objection to it is its price, although that has been reduced 50 per cent since I gave my first dose three months ago

For the other new hypnotic, we have to thank Dr Dujardin-Beaumetz, who recently submitted to the Academie de Médicine of Paris the results of a series of observations on aceto-phenone, or as it is more commonly called, hypnone This compound is prepared by the action of chloride of benzoyl on zinc methyl, or by distilling together a mixture of benzoate and acetate of calcium It is a colorless mobile liquid, having an odor not unlike oil of bitter almonds or cherry laurel water It has a very decided physiological action, for a cubic centimètre injected under the skin of a guinea pig produced a torpid comatose condition, from which the animal did not recover The respiration was quickened, the heart-beats became fewer in number, the animal started convulsively, gradually grew colder, and died To produce sleep, it should be given in doses of from 2 to 16 minims, and, if administered at bedtime, it uniformly produces a well marked hypnotic action It may be diluted with alcohol, ether, glycerine, but the best way to give it is in capsules It communicates to the breath a somewhat disagreeable odor, but its taste may be masked by syrup of orange flower or oil of sweet almonds Dr Dujardin-Beaumetz's observations have been fully confirmed both by Dr Constantine Paul and by Dr Huchard —*British Medical Journal*, February 20 1886

LEAD POISONING —DR SINCLAIR WHITE, the medical officer of health for Sheffield, has recently published an excellent and interesting report on the action of the Sheffield water on the lead communication-pipe and its effects on the health of the community A number of cases of chronic lead poisoning occurred during last year amongst persons not engaged in any of the trades in which lead is used, analysis showing that the drinking-water in every case contained a sufficient amount of lead to account for the poisoning An examination of the water-supply led to the fact becoming known that the water of only some parts of the town contained lead to any appreciable extent Sheffield derives its water from two distinct sources, with separate systems of distribution, the first is from the hills around Redmires, which is collected in reservoirs near its origin, and and runs in a conduit to a reservoir at Crooke, known as Hadfield Reservoir, whence it is distributed to certain high lying districts, the other source is from the hills around Strines and Agden, which runs in a conduit to a reservoir known as Godfrey Reservoir, and is thence distributed to the two low lying parts of the town The persons who suffered from lead poisoning resided in the high lying districts The Redmires water is collected from moorland, the surface peat varying in thickness from a few inches to several feet, and beneath this are shale and mill stone grit of the carboniferous system of rocks, both the peat and the shale contain iron pyrites, and the water was distinctly acid in reaction, the acidity being most intense in the higher portion of the collecting grounds The Strines and Agden water was not acid The cause of acidity in the Redmires water was the subject of careful investigation, and it was found possible that this had resulted, firstly, from the action of soft water on the iron pyrites, giving origin to free sulphuric acid, secondly, from ulmic and humic acids, which are caused by the decomposition of vegetable substances, thirdly, from the atmosphere, which contains large quantities of sulphurous acid, the result of the large consumption of coal in the town Assuming that the first two possible causes had been in force, the impregnation of the Redmires water is explained on the ground that this neighborhood contains iron pyrites, while the water from Strines and Agden, from containing more alumina, which would neutralize the acid, would give less evidence of the presence of free acid A further analysis of water taken from sources where the water had passed through new and old lead pipes showed the former contained a much larger amount of lead than the latter, the former containing from 0 14 to 0 61 grain per gallon, whereas the latter contained from 0 14 to 0 42 grain per gallon Again, long pipes led to greater pollution of the water than short ones, and the length of time the water had stood in the pipes was also directly related to the amount of lead contained The report ends with a statement of the results of filtration carbon and spongy iron filters removing all traces of lead —*Lancet*, March 13, 1886

LEAD POISONING BY HOUSEHOLD UTENSILS —The German Parliament has now under consideration a Bill which is intended to regulate the employment of lead in the manufacture of cooking and other domestic utensils, and so to diminish the risk of poisoning by that metal The provisions of this measure certainly do not err on the side of leniency They forbid the use of vessels containing more than 10 per cent of lead in their composition for the above purposes No alloy with over 1 per cent may be used in coating iron articles used in cookery Solder may consist of lead to one tenth of its amount, but no more Enamels into which lead enters are treated with equal stringency The effect of this Bill, if it be passed, will be to obliterate the legal existence of pewter and of soft solder as at present made, since these alloys contain from one-half- to one-fourth of their weight of lead One fact which it brings into prominence is that lead-poisoning in Germany appears to arise from other causes besides those to which it is commonly attributed in this country. Cases of this kind among ourselves are usually found in the persons of those who are actually engaged in handling lead or its compounds in their daily occupation. Plumbers, painters, glass blowers, glaziers, potters and enamel-card makers furnish the majority of those who suffer from plumbism. When this disorder appears in the household, new paint in the walls or the lead work of the water service affords a clue to its detection. It is comparatively rare to find in these days that pewter pots or cooking utensils are at fault. This may be because glass is used on the whole far more frequently than pewter in the liquor trade, while in the kitchen those vessels the contents of which are most likely to become contaminated with lead in the solder—such, for example, as preserving pans—are usually made of brass or copper (which is kept well burnished), and present a relatively trifling soldered surface, or are lined with porcelain. The water used in cooking also acts as a protective, since the lime salts contained in it tend to prevent the solution of lead. The proposed German legislation on this subject is very perfect in theory so far as it goes. Possibly it may be called for by the teaching of experience. In this country it would probably be found to be needlessly severe, and would not cover the chief causes of the evil which it is intended to meet. We do not see how it can do this even in Germany, unless measures of equal rigor be adopted to control the use of lead in manufactures and in its other domestic applications. The introduction of these further restrictions might fitly exercise the judgment of our own as well as foreign legislators.—*Lancet*, February 13, 1886.

The Treatment of Old Corneal Opacities.—In the last number of *Archiv fur Ophthalmologie*, Dr. Dantziger advocates the treatment of old opacities of the cornea by friction performed daily, and continued for two or three months if necessary. When the opacity is of moderate size, but of considerable density, it is recommended that it should first be scraped away, and the friction, or "massage," commenced as soon as the epithelium has been reformed. The scraping is performed with a Graefe's knife, used in the manner in which one scrapes away a blot with a penknife. Antiseptic precautions are used, and iodoform is applied as a dressing; cocaine produces sufficient anæsthesia. Atropine and warm fomentations are used if the reaction be very great; by the fifth to the eighth day the epithelium has generally been reproduced, and the "massage" is then commenced. A minute piece of Pagenstecher's ointment is introduced, and the upper lid is then moved from side to side over the cornea with the forefinger, with a rapid to and fro movement, for about half a minute. Some hyperæmia is produced, which should not last more than a few minutes; if it last as long as half an hour, the treatment must be used cautiously, and may have it to be abandoned. The author gives a detailed account of ten cases, in four of which the friction was preceded by scraping. With the exception of three, all were opacities which had existed in a stationary condition for more than three years, and in all except one (in which the whole cornea presented a greyish opacity) there was a very great improvement in vision, sometimes without any obvious clearing of the cornea. An improvement from $\frac{20}{200}$ to $\frac{20}{60}$ in three months would, perhaps, about represent the average result of the cases, but in some it was much better. Those who know how very intractable these cases are under ordinary treatment, will welcome any method which offers a reasonable prospect of ameliorating their condition; and should these results be borne out by wider experience, a very valuable addition will have been made to the resources of ophthalmic surgery.—*British Medical Journal*, February 20, 1886.

Salicylate of Lithium in Rheumatism.—Vulpian read before the Paris Academy of Medicine recently a paper in which he claimed certain advantages of salicylate of lythium over the salicylate of sodium. We abstract without comment some of the principal points of his paper, as found in the *Deutsche Medizinal Zeitung* of January 14, 1886.

In spite of the acknowledged specific influence which salicylate of sodium exercises over the rheumatic process in general, every practitioner has met cases which proved absolutely refractory to this medication. In some forms of rheumatism, such as the gonorrhœal, in the subcutaneous articular and chronic articular, the sodium salt has little if any power. In these forms the salicylate of lithium has, in the hands of Vulpian, given fair results, and proven by all means superior to the salicylate of sodium. Wherever the fibrous tissues are first and prominently affected, the lithium salt appears to act better. In some chronic cases, in which the sodium salt had been exhibited for a long time without the slightest effect, salicylate of lithium gave relief in ten to fourteen days, removing pain, swelling and functional disturbance. Improvement was also obtained in some very advanced cases marked by semi anchylosis and deformities. The salt is easily soluble in water, has an agreeable taste, and may be given in doses of 7 grains. The daily ingestion ought not to exceed 1 drachm. The drug is, however, by no means free from unpleasant after effects, though patients who were treated by both the sodium and the litheum salt gave the latter the preference.—*Therapeutic Gazette*, March 15, 1886.

Nervous Troubles in Slow Mercurial Intoxication.—1. Slow mercurial poisoning gives rise to a certain number of nervous troubles which constitute the greater part of its symptomatology.

2. These nervous troubles can be attributed, in part, to the presence of mercury in the nervous centres, where it has frequently been found, and in part to lesions of the cerebro spinal system, which have been described by Wising. One of the most curious characteristics of these lesions is the persistence of the axis cylinder in the altered regions. This last condition is found in the lesions of sclerosis in plaques, which, moreover, in its clinical features

shows some analogies with cerebro-spinal hydrargyrosis

3 The nervous troubles of hydrargyrosis are

a Disturbances of motion trembling analogous to that of sclerosis in plaques, convulsive phenomena of various kinds (cramps, epileptiform attacks, etc), choreic movements, apoplectiform ictus, paralyses presenting the features of paralysis of cerebral origin

b Disturbances of sensibility anæsthesia presenting *the features of anæsthesia of cerebral origin*, painful phenomena of which the most constant are *the arthralgias and* cephalalgias

c Disturbances of a psychical nature which are at first excessively emotional disturbances of sleep, vertigo, and, toward the last, dementia very much resembling senile dementia

4 In general, these nervous orders persist for a very long time, they may be greatly benefited, but only rarely can an absolute cure be obtained — Phillipe Marechal, *These de Paris*, 1885 —*Jour Cutaneous and Venereal Diseases,* March, 1886

A Specific for the Treatment of Hernia — Dr Doroteo de Armas publishes an article in the *Union Medicale de Caraccas* (*Bull Gen de Ther*, No 28, 1885), in which he claims that the peasants of Venezuela produce a radical cure of hernia by means of a parasitic plant which grows on the *Bowdichia virgiloides* The boughs of this parasitic plant are stripped of their leaves, and then scraped with a sharp instrument so as to remove all the inactive portions of the bark, the remainder is then chopped up and mixed with water to form a semisolid paste After the lapse of some time an extractive matter separates, which is at first greenish, but then becomes almost black It is elastic, semi solid, and capable of being drawn out in long filaments, which stick to the hands, and gradually harden when exposed to the air The mode of employment is to spread a thick layer of this substance on a piece of linen, and, after having well shaved the skin, to apply it over the hernial tumor, where it is maintained from forty days to two months Dr Armas refers to two cases of cure with which he is himself personally acquainted He believes that this mode of action is on the one side attributable to its contraction, and so renders it analogous in its application to a truss, and he believes, on the other hand, that it exerts special influence over the hernial rings —*Therapeutic Gazette,* March 15, 1886

Benzoate of Cocaine—Dr A Bignon considers the benzoate superior to all other salts of cocaine as a local anæsthetic Benzoic acid is the natural synergist of cocaine, since it is one of the products of its decomposition, but, when combined with it, increases its stability Moreover, its antiseptic property is an advantage, and the benzoate in solution has a decided odor of the coca leaf Mention is made of epithelioma of the tongue, who could neither eat, talk, nor sleep without using cocaine The muriate only enabled him to sleep for an hour at a time, but the benzoate secured four hours of continuous sleep The experiment was repeated many times and invariably with the same result He states that, whereas an application of the neutral hydrochlorate caused a painful sensation before anæsthesia was established, nothing of the sort occurred when the benzoate was used The benzoate may be prepared extemporaneously in solution by using one part of benzoic acid to three parts of cocaine —*New York Medical Journal Journal* March 13, 1886

Muriate of Thebaine in some Affections of the Optic Nerve —Dr Bono says that thebaine is an excellent myotic, similar to eserine, but producing less spasm and myosis One drop of a 1–40 solution produces its effect in half an hour, the effect passing off in four or five hours He believes that thebaine will prove very useful in the following cases

1 In alcoholic and nicotinic amblyopia

2 In detachments of the retina

3 In incipient progressive general paralysis, with limitation of the visual field and atrophy of the optic nerve

4 In the anæmics and convalescents of grave diseases (typhoid, diabetes, malaria, etc) with visual troubles

5 In descending atrophy of the optic nerve

6 In neuro retinal affections of syphilitics, use being made at the same time of mercurial frictions, with iodide of potassium internally —*Nouveaux Remedes,* March 1, 1886

Intra Venous Injections of Iodine —Dr Van der Heyden, on the assumption that infection of deep closed tissues is due to bacteria, and that these organisms are especially sensitive to the action of iodine, has used the following mixture as an intravenous injection in certain cases

Iodine	1 part
Iodide of sodium	2 parts
Distilled water	7 "
M	

The amount for one injection is 10 grammes

The first injection was made in a case of typhoid fever, in which the temperature was very high It fell immediately, and did not go up again In two cases of cholera, at the beginning, the injection produced a favorable effect In another case, in which the algid period was very pronounced, it was of no avail In three cases of leprosy there was marked amelioration —*Nouveaux Remedes*, March 1, 1886

Congenital Tuberculosis —An eight months' fœtus was taken from a cow, the subject of advanced tuberculosis, by Dr Johne The placenta and uterus were free from tuberculous lesions, but in the lower lobe of the right lung a nodule the size of a pea was detected containing four caseous centres The bronchial glands were congested and also tuberculous The liver contained numerous gray granulations Microscopically the tubercular structure was confirmed, masses of epithelioid cells with giant corpuscles containing tubercular bacilli were discovered —*Lancet*, March 6, 1886

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be pub'ished All com munications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00

SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the under signed When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, APRIL 3, 1886

TUESDAY, MAY 4, 1886

We have seen in several of our exchanges references to the next meeting of the American Medical Association as to take place on the *second* Tuesday in May, which may deceive some in regard to that meeting We think the error in date originated in an editorial in the *Courier-Journal*, of St Louis, several weeks since The meeting at St Louis will commence on the first Tuesday, May 4, 1886, as stated in the official notice of the Permanent Secretary Any of our exchanges which have made the error will confer a favor by making the correction as soon as possible

CHICAGO AS A CENTRE OF MEDICAL EDUCATION

Thirty seven years since, when the writer of this paragraph became a resident of Chicago, there was but one medical college in it, called the Rush Medical College, in honor of Dr Benjamin Rush, of Revolutionary fame Its annual lecture term was sixteen weeks, and its class of medical students numbered about 120 At its recent annual Commencement exercises the same college conferred the degree of Doctor of Medicine on 165 students, and its whole class of matriculants was reported to be 410 Beside this college there have been added three other regular colleges, viz The Chicago Medical College, which is the Medical Department of the Northwestern University, the Chicago Woman's Hospital Medical College, and the College of Physicians and Surgeons At the recent annual public Commencements of these institutions the Chicago Medical College reports 120 matriculants and 39 graduates, the Woman's Hospital Medical College 60 matriculants and 17 graduates, and the College of Physicians and Surgeons 165 matriculants and 71 graduates, making a total of 755 matriculants and 292 graduates

Instead of the original annual term of sixteen weeks, at the present time the regular annual term of instruction is five months in all except the Chicago Medical College and the Woman's College, which require full six months of thoroughly graded instruction each year Thirty seven years since there was no organized hospital open for clinical instruction in Chicago, but during the past year the students of the several schools named have had access for systematic clinical instruction to no less than five important public hospitals for the sick, and to not less than three well patronized free dispensaries The attainment of a fair general education is required of each student before he is admitted to the medical colleges, and during the last eight or ten years the Chicago Medical College has required systematic practical work in the laboratories of chemistry, histology, and pathology as a part of the curriculum for graduation During the past college term the accommodations in the laboratories of histology and pathology have been sufficient for classes of thirty or more at the microscopes, under the direction of the professors or their demonstrators At the recent public Commencement of Rush Medical College it was announced that arrangements had been completed for requiring in future of her classes the same practical work in the departments of histology and pathology

If Chicago does not at this day rank with the first three cities of America in respect to population and commerce, the foregoing facts and figures show that she certainly does as a centre of medical education and scientific progress

PTOMAINES, LEUCOMAINES AND MICROBES—PUERPERAL SEPTICÆMIA

At the meeting of the Académie de Médecine, on February 23, a note was read from Mr Béchamp, of Lille, in which he takes MM Gautier and Peter to task on two or three points in regard to their recent papers on "Ptomaines and Leucomaines" The reading of the communication was followed by an interesting discussion on the part of MM Charpentier, Peter, and Verneuil M Bechamp's first point is as to a question of priority So long ago as May, 1871, he delivered a lecture before the Academy in which he said "The living being, filled with microzymes, bears in itself the essential elements of life, disease, death and total destruction And that this diversity in the results does not astonish us, the results are the same Our cells are constantly destroying themselves by a process of fermentations entirely analogous to those which follow death One may truly say that we putrefy unceasingly" This language in the light of further knowledge, and in conformity with the microbial theories, he now retracts "We neither putrefy nor ferment We are nourished, and what is called fermentation, and putrefaction, is only nutrition in the cellular beings and vibrios"

In the discussion on this subject M Charpentier called attention to the fact that M Trèlat had asked the opinion of obstetricians on certain facts concerning puerperal septicæmia, related by M Le Fort, and interpreted by M Peter in the sense of auto infection, or auto-typhysation, to use the favorite expression of the advocate of spontaneous generation M Charpentier confined his remarks strictly to a general consideration of puerperal septicæmia, and to certain facts advanced by his colleagues First, he said, we must consider one fact as absolutely incontrovertible to day "Puerperal septicæmia is the manfestation, under multiple forms, of an infection, of an intoxication of the lying-in woman It is always accompanied by the presence of microbes in the tissues of the woman so affected This puerperal septicæmia is essentially transmissible, and we may to day, thanks to antiseptic precautions, not only avoid this transmissibility, but even suppress the disease itself, so to speak The statistics of Maternities prove this From 10 to 15 per cent the mortality has fallen to 1 per cent in hospitals It would be nothing, I venture to say, if all the antiseptic precautions were to day and henceforth rigorously carried out"

But if *all* obstetricians be in accord, French and all others, in recognizing that puerperal septicæmia is the result of an infection, it is easily seen that a series of questions are naturally suggested 1 Can a lying in woman produce puerperal septicæmia in herself? Can she spontaneously create this morbid agent, whatever it be, which poisons her? Can she, in a word, produce auto infection, or, on the contrary, is this septic agent always transmitted, or caused by hetero infection? 2 Admitting that puerperal septicæmia is always the result of an infectious agent, what is the nature of this agent? What is to be understood by spontaneity in disease? Charpentier does not think it admissible to hold, with Peter and Béchamp, to the spontaneous development of bacteria, bacteria being only the evolution of microzymes This theory has been completely refuted, within the past two months, by Cornil Spontaneity is only apparent From an exclusively clinical point of view we can never know absolutely the exact source of infection It may be suspected with more or less probability, but can never be demonstrated except by the experimental method When there is a question of infection, whatever this infection may be, there are always two elements to be considered the infecting agent, and the soil upon which it is deposited The soil varies as the woman is in the pregnant or the lying in state The pregnant woman offers no soil for the microbe, but in the lying-in woman the conditions are extremely favorable When a woman, says Charpentier, is delivered without antiseptic precaution, and contracts a puerperal or septic affection, we can never affirm what is the source of the poison

Sometimes isolated cases of puerperal septicæmia are seen, which seem to be developed in spite of all precautions These are often cited as sporadic cases, without direct contagion by the genital organs being shown Are these cases infected by the uterine wound in spite of everything? Are they examples of auto-infection? These, says Charpentier, are insoluble hypotheses. One fact, however, is certain septicæmia is of microbial origin Would M Peter, who denies the influence of the microbe, neglect antiseptic precautions in the lying-in chamber? He attaches great importance to *soil*, seemingly forgetful that the most enthusiastic microbiologists give it almost the same, if not as great importance M Béchamp announces that he will soon make known the true theory of nutrition, and expose the physiological and chemical errors in the expression "vivre anaérobiquement on putrefactivement" of Gautier, errors as prejudicial to science as to medicine Our readers may therefore look for a continuation of this discussion and subject in an early issue of The Journal

SCHOOLS FOR CRIMINALS

A late issue of the *Philadelphia Record*, which, it will be remembered, is the newspaper which exposed the notorious "Dr Buchanan," contained some startling disclosures of gross mismanagement and brutality in the management of the schools or asylums for soldiers' orphans in the State of Pennsylvania These reports have been confirmed by an investigation conducted by the committee of the Grand Army of the Republic, and by the Governor of Pennsylvania in person There are at present eighteen such institutions in Pennsylvania, the number of orphans in them being about 2000, ranging in age from four to sixteen years While the State has no property interest in the schools, it pays annually $150 for each child ordered into them It is evident from the report of the committee that those who managed the schools did so with an eye only to the possible profits to be derived

At scarcely any of the eighteen schools and homes was there a satisfactory condition of affairs, while the management of those at Mount Joy and Mercer is disgraceful The disgusting details of the interior arrangements of the "schools" at Mount Joy, visited by Governor Patterson on March 8, show that the 'school syndicate" have made a good speculation in the orphan farming business, while the orphans have fared similarly to the children in charge of Mr Squeers About 250 boys and girls are incarcerated in the place at Mount Joy The domitories were found to be cramped, foul and almost air tight The bed linen was washed by the orphans, when washed at all The clothing of the children was filthy, ragged, and infested with vermin The managers, evidently familiar with Oliver Twist, "abated not one rag in Dodger's coat" In the so called lavatory the bath tub was an old pickle barrel Those of the large boys who cared to perform ablutions with such uninviting accessories crowded into the "bath tub" two or three at a time, to the exclusion of the smaller boys

The medical department of this establishment was presided over by the "school greaser" Cutaneous diseases and sore eyes were common, and twenty or more of the boys were constantly under the care of the juvenile medical officer, an over grown lad, who, with a brush, "painted his patients with three kinds of salve—one for sore heads, a second for body sores, and a third for what he called 'the each'" The supply of clean towels was limited to *one* a day for *forty* boys, and the girls were no better supplied The orphans did most of their own washing, ironing and baking The "play room," for use on cold and rainy days, was "a foul dungeon of a boiler room, with mouldy walls and damp, dirty floors, where the light of day never penetrated" We have been unable to learn anything as to the death rate in this monstrously mismanaged institution, and it is entirely probable that any such information would be grudgingly furnished, if at all, by the managers Nor are there any facts before us which show what becomes of these children when they are old enough to be emancipated from these schools for criminals—for such they must be We do not know what subjects are taught in these schools, but a list of what is not taught might be easily given Uncleanliness of body is inconsistent with bodily health or moral cleanliness It would be no matter for surprise should the majority of these children become criminals, but it is to be hoped that every effort will be made to correct the present abuses and repair the damage already done

SOCIETY PROCEEDINGS

CHICAGO GYNÆCOLOGICAL SOCIETY

LXIII Meeting, Friday Evening, Feb 19, 1886

THE PRESIDENT, DANIEL T NELSON, M D,
IN THE CHAIR

W W JAGGARD, M D, EDITOR

DR A REEVES JACKSON, opened the adjourned discussion of the treatment of pelvic abscess by reading a paper entitled

LAPAROTOMY FOR PELVIC ABSCESS

Owing to Dr Jackson's absence, the paper was read by the Secretary

At the December meeting of this Society, a discussion arose upon the subject of pelvic abscess and its treatment It was based upon the report of a case by Dr H T Byford, which had been treated by favoring discharge of the pus by way of the rectum, and the placing within the abscess cavity a portion of sulphate of copper to promote granulation The discussion seemed unfinished, and was withal of so interesting a character, that I have thought well to reopen it by the relation of the following case Whether the operation performed in the treatment of the case should be termed a laparotomy will depend upon what signficance we attach to the term Upon this point opinions will doubtless differ

If we understand by the world laparotomy, the opening of the abdominal cavity in its largest sense, the term is here correctly used, but if, on the other hand, we mean the opening of the abdomen for the relief of *an encysted intraperitoneal abscess non adherent to the abdominal wall*, the term would not be properly applicable, for here there was complete adhesion, and, possibly, in the course of time the abscess might have pointed and opened in that direction, although I do not believe that such result would have occurred Without active interference I think the disease would have resulted in death from pyæmia in a very few days

On March 9, 1885, I visited Anna N , in consultation with Dr Louis Braun, of this city She was 24 years old, had been married six years, and had one child 18 months old On February 1—five and a half weeks prior to my visit—she had miscarried, producing a fœtus four months old A few days after that event, Dr Braun found the patient suffering from symptoms of pelvic inflammation, which had since continued, with varying severity He informed me that the pelvic swelling, which he detected on examination, appeared to involve all the periuterine structures, but to a greater extent on the right side, that during the past few days, however, it had seemed greater on the left side From the onset of the attack the pulse had been rapid, and the temperature elevated—the former ranging from 110 to 130, and the latter being persistently over 102° F , reaching on one occasion, 104° F Pain had been severe, but controllable by morphia The appetite had failed utterly and the stomach finally rejected all food At the time of my visit, the patient was pale, extremely emaciated, and her visage showed marks of prolonged suffering

On examination, I found on the left side of and behind the uterus a swelling as large as a medium-sized orange, with rather indistinct outlines Its lower portion was in a plane with, or somewhat below, the *os uteri*, and bimanually its upper margin could be felt extending above the fundus, which was pushed strongly to the right Both uterus and tumor were immovable The latter had a slightly elastic feeling in some places, although I was unable to detect any certain fluctuation through the vagina, rectum or hypogastrium Through the posterior vaginal wall, at a point about an inch above the lower portion of the swelling, I fancied I received a sensation of bogginess, and this, taken in connection with the history of the case, gave me the belief that pus was present Accordingly, I thrust a curved trocar and canula into the swelling by way of the vagina to the depth of about two inches, with no other result than the emission of a few drops of blood It was then concluded that the patient should have prolonged hot water vaginal douches daily, rectal feeding, and appropriate anodyne and tonic medicines

On April 18, five weeks later, I saw the patient again, with Dr Braun, who reported that after my former visit the symptoms had all become gradually ameliorated, the stomach resumed its functions, pain subsided, pulse and temperature became normal No menstrual or other discharge had appeared This improved condition had continued until two days before, when without apparent cause, the patient had a chill, followed by rapid pulse, high temperature, pelvic pain and irritability of the bladder

Under anæsthesia I examined the abdominal and pelvic organs The pelvic swelling had undergone no marked change, except that it seemed to have increased in an upward direction, extending now to a point about an inch above the *symphysis pubis* At this place I thought I detected obscure fluctuation The swelling as felt *per vaginam* was hard at every accessible point All operative measures were declined by the patient and her friends, and the treatment advised consisted in the administration of morphia and quinine, and peptonized milk for diet

April 19, the patient was much worse The pelvic pain was controlled only by large doses of morphia given hypodermically, and the stomach retained almost nothing The pulse was 130, temperature 102° F It was decided that laparotomy should be performed the following day

April 20 There were present as assistants Drs Steele, Braun, Sterl, Dickerson and Mascheck A spray of carbolized water had been kept playing in the room for several hours The patient was etherized, and the bladder emptied by catheter She was the thinnest person I ever saw placed upon an operating table Immediately before the taking of ether her pulse was 124, temperature, 103° F The hair of the pubis was shaven off, and the skin of the abdomen washed with soap and carbolized water An incision three inches long, ending below at the upper portion of the *mons veneris*, was made in the middle line of the hypogastrium Deepening the cut, I came upon the peritoneum, which, however, could not be separated from the parts beneath Proceeding inward through dense structures the knife suddenly entered an abscess cavity, which at once gave exit to a stream of pus to the amount of two or three ounces Passing my finger through the opening, I found that the cavity extended downward, behind and to the left of the uterus, about three inches The abscess walls proper could not be accurately defined The inflammatory processes had matted together the upper part of the uterus, the left broad ligament, tube and ovary The cavity was washed out, and a rubber drainage tube passed to the lower end, the outer portion of the tube being stitched to the edge of the wound at its lower extremity The remainder of the wound was closed with sutures, and dressed in the usual manner

The night following the operation the patient slept fairly without an opiate

When I saw her the next day she had taken milk and lime water with relish, her pulse was 108, and temperature 100 1-5° F In brief, the relief of the symptoms was immediate, and the recovery uninterrupted Pus continued to discharge for more than six weeks in constantly diminishing quantity The tube was then removed Menstruation appeared July 20, and has been regular since I examined the patient September 25 The uterus was still in a position of right lateroversion, but movable in a slight degree The parts about the left broad ligament were thickened, and somewhat tender An irregularly shaped mass occupied Douglas's space, and extended upward and to the left The patient had gained greatly in weight, was ruddy, and doing her own housework

In a letter dated December 29, she states, "I have no pain, and feel better than I have for four or five years"

Dr Jackson appended the following note from Mr Lawson Tait

7 The Crescent, Birmingham, Jan 4, 1886

My Dear Sir I have performed now thirty two operations for pelvic abscess, in every one of which a cure has resulted Yours very truly,

Lawson Tait

Dr Christian Fenger said Before entering into the discussion of the paper which has been read here this evening, I wish to remark that I came here under the impression that the entire subject of suppurative, pelvic inflammation was to be dealt with, I now see the subject is limited to the treatment of pelvic abscess by laparotomy The operation performed in Dr Jackson's case I should not call a laparotomy at all, but simply an oncotomy An abscess was opened, and the operation does not differ materially from the opening of a deep seated abscess in any other region of the body, *e g*, in an extremity As I understand the term laparotomy, and I am not aware that it is ever used otherwise, it means that section of the abdominal parietes is followed by an operation, performed within the peritoneal cavity If the wall of an abscess situated in an abdominal organ has become adherent to the visceral surface of the abdominal parietes, the peritoneal cavity is of necessity obliterated to the extent to which adhesions have formed. An incision made over such adhesions does not open the peritoneal cavity, and consequently the operation cannot be spoken of as a laparotomy. In the paper which I published on "Laparotomy for Periuterine Abscess," it was distinctly stated that the only way by which it seemed possible to get at the abscess was by opening the peritoneal cavity. It is also mentioned that omentum and intestines were found between the walls of the abscess and the walls of the abdomen.

Concerning the etiology of pelvic abscess, I should like to call attention to the literature of the subject. Sanger, whose statements regarding etiology I have found to be the most complete, says that one out of nine of all gynecological affections is of gonorrhœic character. He further says that fifty per centum of these are diseases of the uterine appendages, although, of course, any part of the genital tract may be primarily invaded. In the Fallopian tubes he finds that disease most often has its principal focus, where it begins and whence it spreads. He distinguishes six kinds of salpingitis (1), septic, puerperal and non puerperal, (2), tuberculous, (3), syphilitic, (4), actinomycotic, (5), gonorrhœic, (6), a mixed form. The gonorrhœic is the most common form of the disease, and it produces the most severe cases of pelvic inflammation. It has not as yet been proven that the gonococci of Neisser can, of themselves, produce abscesses, but destruction of the surface of the mucous membrane is sufficient, an entrance is thus given to the septic, pus microbes, the *staphylococcus aureus* and *albus* and the *streptococcus pyogenes*, which are probably always present.

The invasion having taken place, we must ask ourselves by what channel does the inflammation travel? Where should we expect finally to find an abscess in case one should form? The Fellows will remember the beautiful experiments of Bitas, Koenig, Schlesinger, experiments which about three years ago I repeated in the dead house of the Cook County Hospital, although the purpose I had in view at that time was a different one. These gentlemen injected, by means of fine canulæ, fluids, such as colored glue, into the periuterine tissues of puerperal and non-puerperal bodies. Koenig found (*a*) that fluids, injected in the region around the *fundus uteri* and uterine portion of the Fallopian tubes, first pass upwards into the iliac fossa to reach the crest of the ilium, then downwards towards Poupart's ligament, and finally into the *pelvis minor* or true pelvis, (*b*) fluids injected into the periuterine tissues, in the neighborhood of the internal os, first fill the extraperitoneal tissue of the *pelvis minor*, then follow the round ligament as far as Poupart's ligament and ascend in a backward direction into the iliac fossa, (*c*) that when the injection is made near the lower portion of the posterior surface of the uterus, the fluid first flows into the *cul-de sac* of Douglas, and thence rises into the iliac fossa. Schlesinger, although in the main agreeing with Koenig, differs with him in the following two points. He says (*a*) when fluid is injected into the neighborhood of the *fundus uteri*, it first passes into the iliac fossa, but thence it does not descend into the true pelvis, as Koenig observed, but it ascends, running up the anterior abdominal wall, (*b*) from the broad ligament the fluid finds its way into the iliac fossa and thence upwards towards the kidney, running in the mesentery of either the ascending or descending colon. Schlesinger further makes the interesting statement that his pericervical injections filled the pericervical tissues, but that they never produced a tumor which could be felt above the *symphysis pubis*. As far as my experience goes, the results of these experiments correspond well with the clinical facts. The puerperal abscesses which I have opened were situated, two over the crest of the ilium, one on Poupart's ligament, and one on the anterior abdominal wall, about three inches above the ligament.

As before mentioned, about three years ago I made similar experiments, the fluid I employed was milk. My object, at the time, was to ascertain the exact relative position of such an artificial exudate, representing an abscess, with regard to one of the broad ligaments. I wanted to see for myself what difficulties I must be prepared to encounter in uniting the walls of a pelvic abscess, after having opened it, to the edges of the abdominal wound. As might have been expected, I found the difficulties of the operation to vary partly with the size of the exudate and partly with the degree of tension of the abdominal parietes. On the whole, the matter seemed simpler to me than I had *a priori* imagined.

Whether in cases of pelvic inflammations and abscesses laparotomy should be done or not, is a question of comparatively recent date, it being but little older than five years. As I have already said in my paper on "Periuterine Abscess," the operation is always to be regarded as a last resort, and should never be thought of in cases in which the abscess can with safety be reached in any other way, which, of course, includes opening it through the rectum. Lawson Tait, of Birmingham, and Martin, of Berlin, were the first who attempted to prevent the terrible contingencies of pelvic inflammations by attacking the disease at its original seat, Lawson Tait removed the suppurating uterine appendages, Martin operated for suppurating periuterine hæmatocele. Tait operated for a suppurating hæmatoma of the right Fallopian tube (peritonitis) in 1878, and he removed both tubes for pyosalpinx and an ovary for abscess in 1885. In 1885 Martin performed laparotomy in three cases of intraperitoneal hæmatoma, *i. e.*, retro-uterine hæmatocele. He opened the peritoneal cavity, incised the sac, and evacuated the blood and pus, he then drained into the vagina, through the pouch of Douglas, and closed the opening he had made into the sac from the peritoneal cavity by sutures. In the discussion following the reading of Martin's paper, Kaltenbach opposed Martin's operation, and pleaded for an extraperitoneal operation, reaching the abscess either from above Poupart's ligament, or, as Hegar recommended, from the ischio-rectal fossa. In 1880, Feldman, of Gottingen, published an operation for double pyosalpinx. In 1882, Baumgartner published a case of hæmatocele in which Martin's operation had been successfully performed. These more or less sporadic operations called the attention of the profession to the subject, and already during the following year, 1883, upwards of fifty or sixty cases were reported in which laparotomy was resorted to for the cure of pelvic inflammations. Aside from the forty-six cases which Lawson Tait published in his book, "Diseases of the Ovaries," he reported seven more. T. Gaillard Thomas reported five cases, Zeiss, Thornton, Baer and Proschownick, each one. In 1884, America was represented by fifteen cases, Stone, 1, Lee, 4, Lusk, 1, Martin, of Chicago, 1, Goodell, 2, Jones, 1, Thomas, 1, Dawson, 1, Polk, 3. In England we have thirty-five cases. Tait, 15, 7 of pelvic abscess, McDonald, 2, Lediard, 1, Chapman, 1, Savage, 9, 8 of pelvic peritonitis and 1 of hæmatocele, Malin, 7. In Germany, twenty-two cases were reported. Martin, 8 of suppurating hæmatocele, Gusserow, 7, in 4 of which the sac was stitched to the abdominal wound, Sanger, 5, Schroder, 1, Quetsch, 1.

It is evident that the operation rapidly gained ground, and that laparotomy has come to occupy a prominent place in the treatment of pelvic inflammations and abscesses. It may be objected that as yet the indications for the operation are not as clearly defined as we might wish them to be, in answer to this, we can only say that the operation is new, and that we must consider the importance of the subject the guaranty of progress in the right direction.

I wish to add a few words about the subject as it is modified in cases in which the periuterine abscess communicates with the rectum or some other part of the intestines. My remarks will have reference to the discussion of my paper on "Chronic Periuterine Abscess," the discussion of to-night being but a continuation of that broken off at our recent meeting for want of time. My paper was read before this Society in May, 1885. I will refer as well to the discussion of Dr. H. T. Byford's paper on "Pelvic Abscess," read here December 18, 1885.

When a communication exists between an abscess and the intestinal tract, evacuation of the pus into the bowel is sometimes followed by spontaneous recovery. As a rule, however, such a condition is extremely dangerous, for the abscess cavity is constantly being infected with septic material from the intestine. Péan, in his "*Diagnostique et Traitement des Tumeurs de l'Abdomen et du Bassin,*" T. 11, p. 155, writes that a periuterine abscess may open into the cæcum, colon or rectum, that if a periuterine abscess opens into the intestine, bladder or uterus, septic infection will not fail to produce its symptoms and may speedily prove fatal. This statement may be a little too broad. Schroder, in his "*Krankheiten der Weiblichen Geschlechtsorgane,*" Leipzig, 1880, says that when the abscess has broken into the gut or bladder we have to deal with a grave condition, as it is difficult or impossible to reach the abscess from the vagina. At that time, in 1880, he had not thought of the practicability of laparotomy in such cases. When the abscess has evacuated itself into the rectum, he considers it less difficult to get access to it, and he advises cutting through the posterior *cul de sac* of the vagina, and dissecting upwards between the uterus and the rectum. Emmet writes that when an abscess opens into the rectum, the case is very much complicated by septic infection through the fæces. The quotations given are sufficient for us to conclude that, when there is communication between a periuterine abscess and the rectum, the patient is in great and constant danger of dying from septic infection, and that, therefore, an operation should be done, if possible, to provide free drainage of the abscess. In discussing my paper, Dr. W. H. Byford said that he was opposed to the line of treatment suggested by me, *i. e.*, laparotomy, that the *sphincter ani* should be dilated or incised, the communication between the abscess cavity and rectum should be dilated with the finger, a steel dilator or the knife, the cavity of the abscess scraped, washed out, and drainage effected *per rectum*.

Aside from the old, now justly abandoned, puncture of a retro-uterine abscess *per rectum*, Dr. Byford's method of attacking such an abscess is to me entirely new. I have nowhere, in the course of my reading, met with a similar suggestion. If the abscess communicate with the intestine at a point beyond the rectum, a rectal operation is of course out of the question. If the opening into the rectum lies three inches or more above the anus, dilatation is hardly practicable. Such openings are often narrow and tortuous, the neighboring organs are immovable, and even if we divide the sphincter and the retrorectal tissues, we are obliged to work in the dark, for it is difficult or impossible to draw such an opening well down into view. The gentlemen present who have extirpated a carcinoma of the rectum, will appreciate the difficulties of operating high up in the gut.

But above all, I must earnestly warn you against adopting Dr. Byford's plan of employing in this region a knife for the purpose of dilating the opening of an abscess. Working here with a knife, we always run the risk of opening the peritoneal cavity, and of dividing large vessels which are bound in the wall of the sac, as I once demonstrated in the walls of an abscess, situated in a broad ligament. The large uterine vessels may be found anywhere, and if wounded, it is next to impossible to ligature them securely.

In a relatively small number of cases the abscess into the rectum near the anus, in these, dilatation may be tried, and it may even effect a cure, as we learn from Dr. H. T. Byford's case. However, we must have heard of more than one case before we can judge of the value of this method of treatment. Being somewhat enthusiastic over his rectal method, Dr. Byford disposes of laparotomy by saying, "The treatment by abdominal section cannot for a moment be entertained, for at least two reasons," of which the first one is that it is necessarily followed by a recto-abdominal fistula, which is incapable of being promptly cured, and is apt to become an unfailing source of systemic infection. Of the numerous examples we have, I need but mention the perityphlitic abscesses to show that an intestino-abdominal fistula does not contraindicate the evacuation of the abscess. We operate to save life, whatever may become of the fistula afterwards, besides, these fistulæ do frequently close In the third case referred to in my paper, it closed in two months The closure of a cœcal fistula is a common occurrence The explanation is not far to seek Whenever an abscess breaks into the gut, the condition of the abscess necessitates such an outlet for the pus When the abscess is drained through a counter opening in the abdominal wall or the vagina, and thus transformed into a fistula, the necessity for emptying its contents into the bowel no longer exists, the opening has become useless, and it gradually contracts A fistula in itself is no source of infection We never hear, for example, of a primary local tuberculosis originating in a fistulous tract An anal fistula, when tuberculous, is always preceded by a local tuberculosis

Dr Byford, further on, criticises my cases in particular, remarking that to operate as does Lawson Tait, before the abscess has discharged, and then treat antiseptically, is an entirely different matter All I have to say to this is, that the doctor has entirely misunderstood Lawson Tait A letter I had the pleasure of receiving from Mr Tait one month after I had published my cases, begins, "I have just read your extremely interesting articles in the *Annals of Surgery*" I shall now pass the letter around to the Fellows of the Society In his second letter to me, Mr Tait says "Concerning your operations for pelvic abscess, I quite agree with you Opening the abdomen is a very much more satisfactory way of dealing with these cases than any other" Dr H T Byford's further remarks on my cases I shall pass by in silence, as I do not think their discussion is in order before the Chicago Gynæcological Society

Dr **W W Jaggard** begged permission to submit an extract of a letter from Dr Paul F Mundé, received about the 15th of February Dr Mundé's large experience in the treatment of pelvic abscess was well known to the Fellows of the Society Dr Mundé writes "I do not agree with Dr Byford's rectal treatment, as a rule, and certainly have not in my quite extensive experience found true laparotomy required to evacuate and drain a pelvic abscess I mean opening the peritoneal cavity

"Neither has my experience been that of Dr Dudley, who says that the mortality from abscess opening into the rectum, is great I have seen only one case that I thought must die, in which there was a spontaneous rectal perforation"

Dr **Henry T Byford** A few years ago Sir James Y Simpson invented the operation of division of the cervix for uterine flexures Almost all gynecologists began performing it, and in a short time had done more harm than good with it Only a few years since Dr T A Emmet invented the operation of trachelorrhaphy While justly maintaining that it is an exceedingly valuable operation in proper cases, he has recently stated that it may have done more harm than good A short time ago, Lawson Tait invented a method of treating pelvic abscess by laparotomy, and surgeons are resorting to it with a certain degree of success The method is gaining favor, and bids fair to be employed with disastrous frequency, and possibly do more harm than good

In endeavoring to fix the limits of the usefulness of laparotomy for pelvic abscess, we must go beyond the recorded experience of the laparotomists, for the records are not yet all in I understand that Tait opens the abdominal cavity only in those cases which cannot be reached from below

Dr **Fenger** remarked, parenthetically He (Tait) does not operate through the rectum He performs laparotomy when he cannot open through the vagina

Dr **Byford**, continuing Then we may say that abscesses like the one reported (which point above) should be opened by a simple incision, without entering the abdominal cavity, and those which point in the vagina should be opened and treated through the vagina Now the question is, should those which point in the rectum be opened and treated through the rectum? What I claim is, that the procedure has not been thoroughly tested by the profession As has already been stated in this Society by Dr Wm H Byford, we can, by thoroughly stretching the sphincter of the anus, get into almost any abscess which is truly pelvic in its nature, and points, or opens, in the lower four or five inches of the rectum We can dilate the opening, and then enlarge it with the fingers, without the use of any cutting instruments, against which objection has just been made The danger of hæmorrhage from the wounding of blood vessels is certainly very much less than the dangers in operating by laparotomy There must be danger connected with any operation, but in the one I am speaking of it is reduced to the minimum The entrance of fæces is of minor importance, for in the presence of perfect drainage and antiseptic irrigations, they do not remain in the cavity, and do not prevent it from filling in with granulations from the top and sides, and contracting and healing Therefore dilatation *per rectum* should be first tried, and if any cases, after trial, cannot be thus successfully treated, laparotomy, or some other substitute, should be considered Dr Fenger quotes, and then criticises, my arguments against laparotomy, without mentioning that I was only referring to abscesses that could be reached through the rectum With regard to recto abdominal fistula, I must still maintain that the abscess will close up and get well more readily with one opening into the rectum, properly made or enlarged, than if such a fistula exist in which the rectal outlet has not been enlarged Gases and fæces will almost invariably pass through and keep the abdominal end of the fistula open, and will lodge in septic pockets, or sinuses, resulting from the inadequacy of the opening at the rectal end If we close such a fistula above, we have the unfavorable conditions of the original abscess, and must still practice dilatation per rectum Martin's method of instituting perfect drainage through the vagina, and then closing the abdominal opening, would undoubtedly be sound in principle, were it not that an operation through the vagina should take precedence when practicable, and when *not*, a single opening from above must be regarded as fulfilling the requirements, as is proved by the experience of Tait and others Hence Martin's method must eventually be relegated to the exceptional procedures

I do not wish the Society to understand that I do not believe in laparotomy for pelvic abscess, but that, being popular and new, it is apt to be resorted to unnecessarily and unjustifiably The remarkable success of Tait should not be allowed to mislead us His mastery of *technique* and fertility of resource in abdominal surgery, justifies him in assuming risks which others may not

Dr Edmund Andrews It seems to me that the usefulness of the operation in proper cases is reasonably certain, but that we must be careful not to incur the risks of laparotomy when safer methods are available It will broaden our views somewhat, if we recollect that an abscess in the cellular tissue about the uterus does not differ materially in nature, principles of treatment, nor results, from abscesses in the cellular tissue in other parts of the pelvis and abdomen One set of laws governs them all, both in pathology and treatment A point to be remembered is, that many cases recover spontaneously in early stages, contrary to the statements of some eminent men A professional gynecologist or surgeon, whose patients are attracted to him from long distances on account of his reputation, gets a class of cases, because of their long standing and obstinate character He has to combat the same tendency to error of judgment in one respect which besets the mind of a pathologist, whose conclusions are too exclusively drawn from the dead house, that is to say, neither of them sees the numerous cases which recover under ordinary treatment, and therefore do not come before them Recoveries from abscesses in the cellular tissue in all parts of the abdomen and pelvis are common, though they are apt to be very slow

I recall two cases, attended by well known physicians in this city, which recovered from such absceses after suffering about a year These abscesses discharged through the rectum I have, perhaps, been somewhat slow in the treatment of these cases For example, a retrouterine abscess was brought to me from a distant state It periodically discharged into the rectum above the reach of the finger The patient arrived in Chicago in fair general health Directly after her arrival, the discharges grew smaller in quantity, with longer intervals of time between, and she continued to progress in that way Improving constantly in strength and activity, she began to make excursions and long visits to friends in neighboring States, and, in short, enjoyed life so thoroughly that I deemed a laparotomy not justifiable so long as she progressed so well towards recovery without it I presume she got tired of my dilatory plan At any rate, after some months of improvement she ceased to report herself for periodic examination, and I lost sight of the case I have a case now on hand in a more debilitated condition She is confined to her bed the greater part of the time I expected to operate many weeks ago, but soon after I took charge of the case she showed signs of improvement, which led me to postpone the laparotomy to see what would occur The discharges, which were from a point high up in the rectum, grew less in quantity and further apart in time The temperature went down to the normal standard and remained there, the tumor about the uterus diminished in size, and nearly two months have now elapsed since the last small discharge of pus The patient's vigor is slowly returning Under such conditions it is not certain that any pus cavity remains I deem it my duty to wait until the presence of such a collection of pus is reasonably certain before subjecting the patient to the perils of laparotomy Not long ago I had the opportunity to make a post-mortem examination in a case of circumuterine abscess The abscess had formed several years ago, after a difficult parturition I saw the patient in consultation a few times during the last weeks of life The pus was discharged, partly by the rectum and partly through a fistula midway between the *symphysis pubis* and the umbilicus She had been subjected twice to some surgical operation, whose exact nature I did not learn The operations were not laparotomies Having received no benefit, the patient was determined that no more surgery should be tried on her

After some weeks she died of asthenia, and I was allowed a limited autopsy The fistula above the pubes, after passing through the integuments, led downward and to the right, and at a point which seemed to be the right external inguinal ring it entered the inguinal canal and followed the round ligament into the pelvis Here it became more spacious, but exceedingly crooked and complicated, winding irregularly backward until it opened into the upper part of the rectum All the viscera in the vicinity were glued together in a mass by old inflammatory deposits There was no large abscess cavity at any one point, but still there was a flattened pocket some three inches long, and an inch or more in width, lying behind the rectum in the hollow of the sacrum It contained a little pus and fæces This pocket might have been safely opened from below, working up outside the posterior surface of the rectum, had it been possible to ascertain its existence I do not see how it could have been reached by laparotomy The anterior fistula might have been benefited by freely slitting up the inguinal canal I feel compelled to differ with my friend Dr Henry T Byford in one point He suggests very naturally that Tait's operation, performed after the abscess cavity has opened into the rectum, would make a complete intestinal fistula, which it might be impossible to heal This thought is natural, and I confess I would think the same thing myself, had not an extensive observation upon fæcal fistulæ shown me the reverse Experience teaches that an abscess cavity opening into an intestine and filled with putrid pus and fæces, is very reluctant to heal so long as it is not freely drained and disinfected, but if it is widely opened, so as to make and maintain the shortest and straightest possible route from the opening in the cut to the external air, and if it be kept well cleansed and disinfected, fresh granulations will spring up, the orifice will contract and the fistula will heal, provided there is no stricture in the intestine below This fact, or law, is very important, and applies equally to fæcal and urinary fistulæ, as I have verified by an abundant experience A striking case in point occurs to me at this moment An eminent physician on the South Side requested me to take charge of one of his patients, a lady who seemed to have an anomalous hernia, and was sinking under a suppurative discharge from the bowels On examination I found her confined to bed, and rapidly approaching fatal exhaustion There were several evacuations daily of mingled pus and fæces from the rectum The left hip was found prominent over the whole gluteal region The tumor fluctuated on palpation, was resonant on percussion, and gave a succussion on coughing At times it gurgled under pressure I opened it very slowly and carefully, fearing to find an intestine there After passing through the atrophied gluteus maximus, I entered a broad cavity containing neither intestine nor omentum, but filled with pus and fæces This cavity being emptied and washed out, was easily traced up to the sciatic notch, where it entered the pelvis by an orifice of moderate size I now ripped the cavity open for nearly its whole length and kept it cleansed Vigorous granulations sprang up at once and the sac healed up rapidly and permanently The patient seemed relieved of a great depressing influence, and rebounded at once toward health She became plump and rosy, and rapidly regained her full strength

Dr F E Waxham presented for examination a

FEEDING BOTTLE FOR USE IN CASES OF INTUBATION OF THE LARYNX

The feeding bottle consists of an ordinary nursing flask, with a rubber cork, with a small vent through which a tube passes to the bottom of the bottle To this tube is attached another leading to the bulb of a Davidson's syringe, and this in turn is attached to a small sized œsophageal tube In using this apparatus the gag is placed between the jaws, the tube introduced into the œsophagus and the contents of the bottle quickly introduced by means of the bulb

Many patients, especially young infants, do not take sufficient nourishment after intubation has been performed, on account of the coughing produced by the trickling of the liquid into the trachea This apparatus obviates this difficulty

FOREIGN CORRESPONDENCE

LETTER FROM BRAZIL

(SPECIAL CORRESPONDENCE)

Yellow Fever—A Brazilian Pasteur —Treatment and Prophylaxis of Yellow Fever by Inoculation of the Attenuated "Cryptococus Xanthogenicus"—Beri-beri, its Etiology and Genesis—Dr Moncorvo and the "Polyclinica Geral"—Aneurism of the Subclavian

The medical world will soon wake up to the fact that scientific research is not confined to the great European centres, and that a "Koch" or a "Pasteur" is quite as likely to turn up in the new as the old world Brazil is already putting in her claim for a share of attention Dr Domingos José Freire, the results of whose studies on yellow fever have been going the rounds of the medical journals, has been called the Brazilian Pasteur, and well deserves the title His recent work on the "Doctrine Microbiénne de la Fièvre Jaune," is a monument of honest, painstaking labor in a very difficult field, extending over a period of several years, it is a work of 630 pages, written in the simple, direct style of your true scientist, and accompanied by elaborately executed plates, illustrating the various steps of the work which led to the discovery of the "Cryptococus Xanthogenicus," with carefully prepared tables of the hospital and laboratory experiments, by which he established a causal relation between his new found microbe and the yellow fever

In a recent pamphlet he gives the net results of his 6000 inoculations of the pure culture, carefully recorded and kept track of, when practicable So far, none of them have died of yellow fever, while more than four hundred persons *not inoculated*, inhabiting the same neighborhood, have succumbed to the disease These are ugly figures for the anti microbists As a matter of course, he meets with a great deal of adverse criticism and opposition among his colleagues in Rio It is the old story, "A prophet is not without honor save in his own country" People who live beyond the radius of personal prejudice, however, recognize the significance of these facts The comparative death rate from yellow fever for the last three years is 1883, 1336, 1884, 618, 1885, 374 The part of the total mortality of 1885 credited to yellow fever is 3 6 per cent , against 16 2 per cent in some of the bad years

In a recent communication from Dr Freire he claims, in his own words, that "La *prophylaxie est un fait deja acquis*, je ne hésite pas à l'affirmer et ne cesserai de le confirmer de plus en plus Quant à la *thérapeutique*, les observations suivante nous inspirent les plus belles et les plus flatteuses espérances " Following this are the details of four cases of undoubted yellow fever, treated by him, after Pasteur's method, with the attenuated yellow fever microbe, by injecting a gramme of the liquid culture into the region of the deltoid He also reports three cases treated in the same way, in his hospital, by the late Charles Browne—seven cases in all, with seven recoveries! In each case there was a marked amelioration within twenty four hours In one case only was a second injection necessary

The present season bids fair to afford the learned Professor ample opportunities for pursuing his studies The intense heat, scarcity of water, and general bad sanitary condition of Rio favor the development of an epidemic The daily increasing death rate from yellow fever is already beginning to give serious concern Dr Freire's report of this season's work in the fever districts will be looked for with unusual interest

Beri beri is now, and has been for a year or two, ravaging the whole coast line of Brazil lying within the tropics, and attracts more attention than even yellow fever, its per centage of deaths reaches in some localities the appalling figure of 74 50 per cent of all attacked, and the total mortality of the coast is *treble that of yellow fever* The beri beri, or *barbiers of Brazil*, differs widely from the disease bear ing the same name in India, and described by Morehead, Aiken, and others, yet it preserves a significant number of the leading features to establish its identity Of the three types—the paralytic, the œdematous, and the mixed—about 67 per cent are of the paralytic I saw a great many cases along the coast last July, among them some of the so called "galloping" cases, where the patient succumbs in a few hours The symptoms are, at first glance, those of a myelitis A great many papers have been written on the disease, the most valuable and complete being that of Dr J F de Silva Lima, of Bahia, giving a full history of the disease from its first appearance in Brazil Unfortunately, this work was written several years ago, and does not embrace the later observations Dr J B de Lacerda, the author of the permanganate of potash treatment for snake bite, and who, by the way, is one of the ablest microscopists and most indefatigable investigators in the Empire, has published two works on beri beri, and claims to have identified it with the "*horse pest*" of the island of Marajo, and to have discovered the "microphyto beriberigeno" Whether Dr Lacerda succeeds in making his microphyte stick or not, he has written a very valuable book and thrown a good deal of light upon an important subject

The profession is indebted to Dr Moncorvo, of the Rio Polyclinic, for several valuable monographs on diseases of children "The Frequency of Dilatation of the Stomach in Children," "Temperature of the Abdominal in Enteritis of Children," "Whooping Cough, and the use of Muriate of Cocaine in its Treatment," "Resorcin in the Treatment of Whooping Cough," etc

Prof Saboia, of the Imperial Academy of Medicine, recently operated upon an aneurism of the right subclavian, by electro puncture, after the manner of Prof Ciniselli Fourteen elements were used, and after thirty five minutes the tumor became hard and ceased to pulsate

It will be seen by the foregoing that medicine is alive in Brazil, and likely to be heard from in the future H M L

Sao Paulo, Brazil, Feb 15, 1886

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

Dr Flint—The Discussion on Glycosuria—Jambol and Matzoon in Diabetes—Cremation not a Necessary Sanitary Measure—The Meeting of the Fifth District Branch—Dr Charles H Phelps—Dr Ezekiel Wade—Curious Hallucination

At the meeting of the Academy of Medicine held March 18, when the death of ex President Austin Flint was announced, the President, Dr A Jacobi, stated that he would claim for himself the privilege of pronouncing before the Academy the eulogy on his illustrious predecessor in the office Dr Stephen Smith was appointed to prepare a memoir of the late Dr Alfred C Post

The subject of the evening's discussion, which was introduced by the Section on Theory and Practice of Medicine, was Glycosuria The first question propounded was, *The Significance of Small Quantities of Sugar in the Urine*, and it cannot be said that a great deal of light was thrown upon the subject by the speakers participating in the debate, although considerable information was elicited in regard to the difficulty of detecting small amounts of sugar and the best methods for accomplishing this Unfortunately, both the gentlemen who were expected to read papers upon this subject, Dr E C Seguin and Dr L Weber, were unable to be present, and the discussion was entirely an extemporaneous one Dr T A McBride said that while sugar was not infrequently found in the urine in connection with phthisis, pleurisy, cardiac disease, cerebral hæmorrhage, certain of the psychoses, and other grave forms of disease, it was recognized at the present day that in moderate amount sugar might itself be the cause of various nervous troubles, such as insomnia, so called neurasthenia, paræsthesia certain pareses and even temporary hemiplegia The quantity of sugar present in the urine in these cases varies from a trace to 2½ per cent, though as large a proportion as the latter figure was rare On the whole, he felt obliged to confess that he was now somewhat at a loss to say what was really diabetes and what was not

Dr George B Fowler called attention to the fact that sugar was often to be found in the urine of those taking sweets freely, particularly on an empty stomach, and said that patients in whom there was slight glycosuria, with more or less defective digestion, would frequently recover very quickly under a properly regulated diet

Dr Wm H Draper remarked that he had ceased to attach much importance to the occasional occurrence of very small quantities of sugar in the urine, for the reason explained by Dr Fowler He found it very often, particularly in the lithæmic state, in which there were seen the evidences of suboxidation When crystalline uric acid and the urates in large amount were present in the urine, sugar was very apt to be found also All were to be attributed alike, he thought, to defective metabolism, and the treatment which rendered the urine normal in other respects, would also remove the sugar from it As Dr McBride had remarked, it was difficult to say where diabetes really commenced Sugar was not infrequently found in the urine of patients passing not only imperfectly assimilated hydrocarbons, but also nitrogenous food, and therefore sugar was often to be regarded simply as an indication of dyspepsia He did not think one could distinguish any difference in the cases of nervous disturbance in connection with lithæmia, whether sugar was formed in the urine or not Bence Jones had long ago remarked that the "sour disease," or gout, was very closely allied to the "sweet disease," or diabetes mellitus, and had pointed out the important fact that gout and diabetes very frequently existed in the same families, and even in the same individual

The President, Dr A Jacobi, said that in a great many persons, at times sugar was found in the urine in small quantities which could be detected by the ordinary tests When he was a student he had been taught that diabetes was a very rare disease, and was always fatal It was true, indeed, that the cases in which the specific gravity ranges from 1040 to 1060 were rare, but cases in which it ranges from 1017 to 1035 were very frequent, and they were by no means always of a mild character Still, quite a large number of such patients lived a long time, and some got entirely well A considerable proportion of these cases are in gouty individuals beyond middle life When their general heath was good, very little sugar was to be found in the urine, but when they began to fatten up and took little exercise, the quantity might be sufficient to produce pruritus vulvæ in the case of females When such patients contracted other diseases, however, and especially pulmonary affections, they were in the greatest possible danger, and, as a rule, they would not survive an attack of pneumonia Having mentioned the case of four brothers, all of whom were or had been the subjects of diabetes, he remarked that this history showed that in a large number of cases the presence of sugar in the urine indicated defective assimilation If this condition was not appropriately treated, it might result in persistent diabetes and perhaps finally terminate in pulmonary disease He would say, there fore, that sugar in small quantities did not signify much, as long as a good general state of health was maintained, but it might be the source of great danger when other disease set in

In the course of the discussion of the second topic, which was the *Treatment of Diabetes*, Dr Cauldwell related his experience with the recently discovered so called specific, jambol He had prescribed it in four well marked cases of the disease, in each of which the patient was passing more than 100 ounces of urine, while in all the specific gravity of the urine was above 1035 All the patients were treated alike, and, in addition to the use of the drug, was kept on anti diabetic diet, with a moderate allowance of toasted bread Five grains of the powdered jambol seed were given three times a day In the first case the effect was apparently quite remarkable Within two months the patient gained twelve pounds in weight, and the sugar disappeared entirely from the urine For a month past it has remained absent In the second case, on the other hand, no effect whatever was produced by the remedy, as far as could be perceived, but in the third and fourth cases the results were beneficial In one the daily quantity af urine passed was reduced to eighty two ounces, with a specific gravity of 1030, and in the other to fifty ounces, with a specific gravity of 1028, while in the latter case the patient had gained ten pounds in weight In addition, Dr Cauldwell referred to two cases which had been under the care of Drs Keyes and Alexander, in one of which the improvement had been very satisfactory, while in the other there was no improvement whatever In four cases out of six, therefore, the use of jambol had been followed by improvement, and in two it had proved a failure

Dr Draper remarked that, excluding the dietetic treatment, it might be truly said that the treatment of diabetes was as purely empirical as our knowledge of its pathology was speculative There was no trustworthy evidence that drugs alone, without the more or less complete restriction of saccharine and starchy food, were of any service, and while medicinal agents were undeniably useful as adjuvants, his experience led him to believe more and more that the dietetic and hygienic management constituted the essential factor in the successful treatment of this affection The three medicines which had proved of the most service in his hands were codeia, sulphide of calcium, and the alkaline carbonates His attention had first been called to Dr N C Husted, who himself recovered from diabetes under the use of this drug, which he originally took for the relief of furuncles It was followed with good results in a considerable number of cases, especially in gouty subjects, and he believed that it enabled the diabetic to indulge in a greater variety of food than he could otherwise do The alkaline carbonates he had also proved very valuable, and, believing, as he did, that both gout and diabetes are not infrequently due to defective metabolism, he thought that it was a rational treatment to stimulate oxidation

Dr Dadirrian, who has practiced for some time in Constantinople, spoke of the good effects of matzoon, or fermented milk-food, in which the sugar is converted into lactic acid, and which is used largely throughout the East, and Dr Baruch strongly advocated the efficacy of judicious active and passive exercise in diabetes, the amount of exercise being regulated by the strength of the patient

At the last meeting of the New York Society of Medical Jurisprudence and State Medicine, its venerable President, the distinguished surgeon, Dr Frank H Hamilton, read a paper on *Cremation*, in which he took a somewhat different view of the subject from what is entertained by many in the profession at the present day, but one which it would perhaps be well for some enthusiasts to ponder over before committing themselves to such rash and uncalled for measures as have recently been proposed and discussed This conservative paper of Dr Hamilton's was called out by a proposition made by a member of the Society of Medical Jurisprudence at a preceding meeting to ask the Legislature of the State of New York to enact a law making compulsory the cremation of persons who have died of certain infectious diseases, and of those who are buried at the public expense, and it was entitled "*Cremation of Human Bodies Not a Necessary Sanitary Measure*" He said that he could not approve of the proposed legislation, or of any legislation making it obligatory that the body of any person who has died of any disease, or under any circumstances whatever, shall be cremated, and for the following reasons

First The danger to health and life from the present mode of burial, when the inhumation has been properly made, has, by the advocates of cremation, been greatly over-estimated, if, indeed, it can be said to exist at all

Second Cremation removes effectually one of the most important means of detecting certain crimes

Third The general sentiment of the community in which we live is opposed to cremation, and, in view of the facts above stated, it would be unnecessary, unwise, and unjust to impose cremation by legal enactments

The first of these, he thought, was perhaps the only one at present requiring extended discussion, and to this he especially devoted his attention In speaking of the comparative innocuousness of the emanations from abattoirs, he said The mortuary and general sanitary statistics of Chicago will probably not show that it is any more unhealthy to day than it was before it became the slaughter house of the world, nor has it been said that Cincinnati has suffered in its sanitary reputation by the immense growth of its industry in the slaughter and packing of hogs for home and foreign markets He did not wish to be misunderstood, however He did not intend to say that decaying animal matter does not give out noxious gases, and when these are present in the atmosphere in certain quantities and under certain circumstances that they do not cause sickness and death, but only that, in the light of the observations which he had made in reference to the emanations from decaying human and other animal bodies, the dangers from these sources have, in the popular mind, been greatly exaggerated

In treating of the immunity from infection of those constantly working in dissecting rooms, he quoted the opinion of Duchatelet, after a thorough investigation of the subject (an opinion that was concurred in by Lallemand, Dessault, Dubois, Dupuytren, Boyer, Andral, Lawrence, of London, and Warren, of Boston), that it was "an error to suppose that the air of a neighborhood is ever contaminated—so as to induce disease—by the emanations from dissecting rooms, or that the students ever suffer from breathing the impure air of those places" After referring to the various dissecting-rooms of this city he said "I am informed, I think authoritatively, that, according to some recent experiments, the air of the autopsy rooms, and of the other rooms attached to the dead-house (at Bellevue) contained fewer septic germs than the most favored ward in Bellevue Hospital, namely, the Osborne ward, which is a new, outlying, one story brick pavilion, and which is considered a model of sanitary construction, arrangement and police"

In considering to what extent health and life are endangered by emanations from animal bodies buried beneath the surface of the earth, he stated that chemistry and experience have alike demonstrated that the escaping gases, and the fluid or solid organic matters which sometimes find exit with them, rapidly undergo changes by entering into new combinations when brought into contact with the earth This was illustrated in the familiar experience with the so called "earth closet," and was to the scientist a well known fact If many bodies were deposited at the same time in a great vault, or in superficial trenches, it would be easy to understand how the gases and organic matter might, for a time, penetrate the soil unchanged, and in a sufficient amount to render the surrounding atmosphere and the adjacent water unwholesome, although after the great battles of modern times, where many thousands have been thus buried in a single day, no accounts have reached us of sickness or of pestilence thereby induced In the case, however, of our civic and rural burial grounds, within which bodies are deposited one by one, at considerable intervals of time and at great depth, it would seem impossible, in the light of the accumulated testimony now presented, that any harm should come to the living

Having remarked that nearly all of the testimony adduced by the cremationists, if not all of it, was drawn from the assumed noxious emanations from certain burial grounds in Europe or Asia, and thus placed beyond the reach of critical investigation, he said it was, in fact, a just ground of complaint that the American advocates of cremation as a hygienic measure do not draw their illustration from examples supplied by our own country In order that his position might be fairly understood, he thought it well to say that he was defending the mode of burial usually practiced in this country, namely, from four to six feet below the surface of the earth, as in itself a complete sanitary measure, and as rendering cremation unnecessary New Orleans, and all other cities where the dead cannot be buried to a sufficient depth beneath the surface, might do well to consider the alternative of cremation, but this admission, he thought, supplied no argument against inhumation where it can be properly done Any who would feel interested in following out Dr Hamilton's argument in full will find the paper in the April number of *Gaillard's Medical Journal*

A successful special meeting, for scientific purposes, of the Fifth District Branch of the New York State Medical Association, was held at Yonkers, on the Hudson, on March 23 The gathering took place in the Common Council Chamber, which is situated in the ancient Phillipse manor house, one of the oldest and finest colonial buildings in the country, the bicentennial of which was celebrated with elaborate and appropriate ceremonies in October, 1882 The programme of scientific papers, which has been published in THE JOURNAL, was carried out, and several memoirs of deceased Fellows were read Much interest was shown in the proceedings, and it was decided to have another special meeting of the Branch in June next This will be held at Kingston, Ulster County, and it is probable that a delightful excursion to the neighboring Catskills will be arranged in connection with it

The Governor of the State has made a very satisfactory appointment in nominating as Health Officer of the Port Dr Charles H Phelps, who has already acceptably filled a number of medical positions of importance, and is at present one of the attending surgeons to Bellevue Hospital, of the Medical Board of which, as well as of the Board of Police Surgeons, he is President He also has a large practice, and is much liked personally One of the three Quarantine Commissioners whom Governor Hill nominated at the same time is also a physician, Dr John H Douglas, who has become widely known all over the country by his connection with the case of General Grant

Dr Ezekiel Mulford Wade, who died at his residence in the town of Watervliet, New York, in the early part of March, was a grandson of Edward Wade, a Revolutionary patriot who took part in the Battle of Bunker Hill His father, James Wade, M D, was quite a noted physician, his practice extending into Albany, Schenectady, and Saratoga counties, and his reputation is said to have been established during a notable epidemic of so called typho pneumonia, in which nearly all other physicians in the region lost almost every patient within twenty-four hours after the bleeding then resorted to as a routine practice at the beginning of the treatment By avoiding bleeding, and by the use of supporting measures, he saved nearly all his cases

The other evening a woman apparently about 45 years of age presented herself at police headquarters and asked for protection, who was suffering under a somewhat unusual hallucination She stated that she was followed by relatives who wanted to administer to her hypodermic injections of morphia, and though she had thus far been able to baffle their efforts, she feared that she would not be able to do so any longer P B P

"THE FUTURE OF THE AMERICAN MEDICAL ASSOCIATION"

To the Editor of the Journal

Dear Sir The Philadelphia *Medical News* of February 27, under the above caption, published an article from the *Nashville Medical and Surgical Journal*, of February 1886, which reads as follows

"The meeting of the American Medical Association at St Louis, Mo in May next, will be a most important one Surely, every physician who holds the honor of his profession dear, should either go himself, or interest himself in sending such representatives as are honorable and pure, and free from all selfish motives for self-advancement and preferment, and fully alive to the important issues that will be discussed at this meeting The topic of the International Medical Congress will be the absorbing question for discussion *Of late years this Association has appeared to degenerate into a body merely medico political*, and it is time something should be done to elevate it to a proper standard and make it what the British Medical Association is to the profession in England, representative and national *Political intrigue and trickery* have too long held sway in this Association, and it is time the profession should see to it, that it be no *longer thus degraded* and be brought back to the place it occupied in its palmiest days From year to year the meetings have become less and less important in a scientific point of view, and it is time every true physician should individually strive to change its downward course If some change is not soon effected, the Association will cease to exist, and the profession will turn its attention to the separate special Associations, which are all now in a flourishing condition We hope, therefore, that all who can, will make an effort to attend the coming meeting"

Surely no intelligent physician can read the above quotation and be at a loss to divine both its origin and animus The deep solicitude manifested for the well being of the Association and the terms of affection are covered by a veil too thin to conceal the venom rankling in the bosoms of disappointed schemers and plotters to overthrow, or disgrace, or humiliate the American Medical Association—an Association dear to the great overwhelming mass of the medical profession, and should be, to every true and honorable physician in this land and country It is written somewhere in the Holy Scriptures, "that a man's (worst) enemies are the men of his own household" It does seem to me that in this unnecessary and unreasonable antagonism to the Association, and I may say tirade of slander, this saying is literally fulfilled It is humiliating to our profession to read such untrue and venomous statements as are contained in the foregoing quotation, and we are wonderstruck that any medical journal, having any pretentions to honorable professional pride and respectability, should reproduce it without denouncing it as a spiteful calumny When did the American Medical Association degenerate into a "body merely medico-political?" And when did "political intrigue and trickery" commence, which the splenic writer affirms have too long held sway in this Association?

The truth of the matter is that, until the last meeting of the Association, we never heard of any such changes, neither a hint of such suspicion Up to that time the Association was held to be a body of honorable men intent only to work for the good of the profession—to elevate the standard of medicine and to maintain the true honor and dignity of medical science But at the meeting in New Orleans it did come about that a few ambitious schemers, (I will not say political intriguers) made their appearance (by proxy) desiring to get control of the Association, and to use it in their own preferment and distinction, to the exclusion of members fully their peers in every essential quality of medical and scientific culture, and because their schemes were resisted and frustrated as selfish and sectional, and the Association held true to its honor and representative national character, these discomfited schemers have resorted to every misrepresentation to injure the Association, and to make the meeting of the International Medical Congress in this country in 1887 a failure Can any fair minded man conceive of any course more despicable on the part of physicians claiming to be honorable and the leaders of medical thought?

Now, in good faith, what was the real offence given by the Association at the meeting in New Orleans? It did not displace any one of the seven the Committee appointed at its meeting in Washington in 1884 It simply added others, enlarged the Committee to make it more representative of the entire medical profession of the United States, in whose name the Association had extended the invitation to the International Medical Congress, and to this Committee thus enlarged, the power was given to revise the work already done, and to perfect and complete every arrangement for the successful meeting of the Congress in Washington City in 1887 Was there "medico political" trickery in the exercise of this clear and undoubted right? Was there anything in it that should have wounded the feelings and given offence to any honest medical worker, unselfishly labor-in which we live is opposed to cremation, and, in view of the facts above stated, it would be unnecessary, unwise, and unjust to impose cremation by legal enactments.

The first of these, he thought, was perhaps the only one at present requiring extended discussion, and to this he especially devoted his attention. In speaking of the comparative innocuousness of the emanations from abattoirs, he said: The mortuary and general sanitary statistics of Chicago will probably not show that it is any more unhealthy to-day than it was before it became the slaughter-house of the world, nor has it been said that Cincinnati has suffered in its sanitary reputation by the immense growth of its industry in the slaughter and packing of hogs for home and foreign markets. He did not wish to be misunderstood, however. He did not intend to say that decaying animal matter does not give out noxious gases, and when these are present in the atmosphere in certain quantities and under certain circumstances that they do not cause sickness and death, but only that, in the light of the observations which he had made in reference to the emanations from decaying human and other animal bodies, the dangers from these sources have, in the popular mind, been greatly exaggerated.

In treating of the immunity from infection of those constantly working in dissecting rooms, he quoted the opinion of Duchatelet, after a thorough investigation of the subject (an opinion that was concurred in by Lallemand, Dessault, Dubois, Dupuytren, Boyer, Andral, Lawrence, of London, and Warren, of Boston), that it was "an error to suppose that the air of a neighborhood is ever contaminated—so as to induce disease—by the emanations from dissecting rooms, or that the students ever suffer from breathing the impure air of those places." After referring to the various dissecting-rooms of this city he said: "I am informed, I think authoritatively, that, according to some recent experiments, the air of the autopsy rooms, and of the other rooms attached to the dead-house (at Bellevue) contained fewer septic germs than the most favored ward in Bellevue Hospital, namely, the Osborne ward, which is a new, outlying, one-story brick pavilion, and which is considered a model of sanitary construction, arrangement and police."

In considering to what extent health and life are endangered by emanations from animal bodies buried beneath the surface of the earth, he stated that chemistry and experience have alike demonstrated that the escaping gases, and the fluid or solid organic matters which sometimes find exit with them, rapidly undergo changes by entering into new combinations when brought into contact with the earth. This was illustrated in the familiar experience with the so-called "earth-closet," and was to the scientist a well-known fact. If many bodies were deposited at the same time in a great vault, or in superficial trenches, it would be easy to understand how the gases and organic matter might, for a time, penetrate the soil unchanged, and in a sufficient amount to render the surrounding atmosphere and the adjacent water unwholesome, although after the great battles of modern times, where many thousands have been thus buried in a single day, no accounts have reached us of sickness or of pestilence thereby induced. In the case, however, of our civic and rural burial grounds, within which bodies are deposited one by one, at considerable intervals of time and at great depth, it would seem impossible, in the light of the accumulated testimony now presented, that any harm should come to the living.

Having remarked that nearly all of the testimony adduced by the cremationists, if not all of it, was drawn from the assumed noxious emanations from certain burial grounds in Europe or Asia, and thus placed beyond the reach of critical investigation, he said it was, in fact, a just ground of complaint that the American advocates of cremation as a hygienic measure do not draw their illustration from examples supplied by our own country. In order that his position might be fairly understood, he thought it well to say that he was defending the mode of burial usually practiced in this country, namely, from four to six feet below the surface of the earth, as in itself a complete sanitary measure, and as rendering cremation unnecessary. New Orleans, and all other cities where the dead cannot be buried to a sufficient depth beneath the surface, might do well to consider the alternative of cremation; but this admission, he thought, supplied no argument against inhumation where it can be properly done. Any who would feel interested in following out Dr. Hamilton's argument in full will find the paper in the April number of *Gaillard's Medical Journal*.

A successful special meeting, for scientific purposes, of the Fifth District Branch of the New York State Medical Association, was held at Yonkers, on the Hudson, on March 23. The gathering took place in the Common Council Chamber, which is situated in the ancient Phillipse manor house, one of the oldest and finest colonial buildings in the country, the bicentennial of which was celebrated with elaborate and appropriate ceremonies in October, 1882. The programme of scientific papers, which has been published in The Journal, was carried out, and several memoirs of deceased Fellows were read. Much interest was shown in the proceedings, and it was decided to have another special meeting of the Branch in June next. This will be held at Kingston, Ulster County, and it is probable that a delightful excursion to the neighboring Catskills will be arranged in connection with it.

The Governor of the State has made a very satisfactory appointment in nominating as Health Officer of the Port Dr. Charles H. Phelps, who has already acceptably filled a number of medical positions of importance, and is at present one of the attending surgeons to Bellevue Hospital, of the Medical Board of which, as well as of the Board of Police Surgeons, he is President. He also has a large practice, and is much liked personally. One of the three Quarantine Commissioners whom Governor Hill nominated at the same time is also a physician, Dr. John H. Douglas, who has become widely known all over the country by his connection with the case of General Grant.

Dr. Ezekiel Mulford Wade, who died at his residence in the town of Watervliet, New York, in the early part of March, was a grandson of Edward Wade, a Revolutionary patriot who took part in the battle of Bunker Hill. His father, James Wade, M.D., was quite a noted physician, his practice extending into Albany, Schenectady, and Saratoga counties, and his reputation is said to have been established during a notable epidemic of so called typho pneumonia, in which nearly all other physicians in the region lost almost every patient within twenty-four hours after the bleeding then resorted to as a routine practice at the beginning of the treatment. By avoiding bleeding, and by the use of supporting measures, he saved nearly all his cases.

The other evening a woman apparently about 45 years of age presented herself at police headquarters and asked for protection, who was suffering under a somewhat unusual hallucination. She stated that she was followed by relatives who wanted to administer to her hypodermic injections of morphia, and though she had thus far been able to baffle their efforts, she feared that she would not be able to do so any longer.

P. B. P.

"THE FUTURE OF THE AMERICAN MEDICAL ASSOCIATION."

To the Editor of the Journal.

Dear Sir: The Philadelphia *Medical News* of February 27, under the above caption, published an article from the *Nashville Medical and Surgical Journal*, of February 1886, which reads as follows:

"The meeting of the American Medical Association at St. Louis, Mo., in May next, will be a most important one. Surely, every physician who holds the honor of his profession dear, should either go himself, or interest himself in sending such representatives as are honorable and pure, and free from all selfish motives for self-advancement and preferment, and fully alive to the important issues that will be discussed at this meeting. The topic of the International Medical Congress will be the absorbing question for discussion. *Of late years this Association has appeared to degenerate into a body merely medico political*, and it is time something should be done to elevate it to a proper standard and make it what the British Medical Association is to the profession in England, representative and national. *Political intrigue and trickery* have too long held sway in this Association, and it is time the profession should see to it, that it be no *longer thus degraded*, and be brought back to the place it occupied in its palmiest days. From year to year the meetings have become less and less important in a scientific point of view, and it is time every true physician should individually strive to change its downward course. If some change is not soon effected, the Association will cease to exist, and the profession will turn its attention to the separate special Associations, which are all now in a flourishing condition. We hope, therefore, that all who can, will make an effort to attend the coming meeting."

Surely no intelligent physician can read the above quotation and be at a loss to divine both its origin and animus. The deep solicitude manifested for the well being of the Association and the terms of affection are covered by a veil too thin to conceal the venom rankling in the bosoms of disappointed schemers and plotters to overthrow, or disgrace, or humiliate the American Medical Association—an Association dear to the great overwhelming mass of the medical profession, and should be, to every true and honorable physician in this land and country. It is written somewhere in the Holy Scriptures, "that a man's (worst) enemies are the men of his own household." It does seem to me that in this unnecessary and unreasonable antagonism to the Association, and I may say tirade of slander, this saying is literally fulfilled. It is humiliating to our profession to read such untrue and venomous statements as are contained in the foregoing quotation, and we are wonder-struck that any medical journal, having any pretentions to honorable professional pride and respectability, should reproduce it without denouncing it as a spiteful calumny. When did the American Medical Association degenerate *into* a "*body merely medico-political?*" And when did "political intrigue and trickery" commence, which the splenic writer affirms have too long held sway in this Association?

The truth of the matter is that, until the last meeting of the Association, we never heard of any such changes, neither a hint of such suspicion. Up to that time the Association was held to be a body of honorable men intent only to work for the good of the profession—to elevate the standard of medicine and to maintain the true honor and dignity of medical science. But at the meeting in New Orleans it did come about that a few ambitious schemers, (I will not say political intriguers) made their appearance (by proxy) desiring to get control of the Association, and to use it in their own preferment and distinction, to the exclusion of members fully their peers in every essential quality of medical and scientific culture, and because their schemes were resisted and frustrated as selfish and sectional, and the Association held true to its honor and representative national character, these discomfited schemers have resorted to every misrepresentation to injure the Association and to make the meeting of the International Medical Congress in this country in 1887 a failure. Can any fair minded man conceive of any course more despicable on the part of physicians claiming to be honorable and the leaders of medical thought?

Now, in good faith, what was the real offence given by the Association at the meeting in New Orleans? It did not displace any one of the seven the Committee appointed at its meeting in Washington in 1884. It simply added others, enlarged the Committee to make it more representative of the entire medical profession of the United States, in whose name the Association had extended the invitation to the International Medical Congress, and to this Committee thus enlarged, the power was given to revise the work already done, and to perfect and complete every arrangement for the successful meeting of the Congress in Washington City in 1887. Was there "medico political" trickery in the exercise of this clear and undoubted right? Was there anything in it that should have wounded the feelings and given offence to any honest medical worker, unselfishly laboring for the advancement of true medical science and the good of the whole profession? It strikes me there was not, that the action taken, was open, frank and fair dealing, and absolutely required to keep the Association true to its representative character and the high and honorable standard of medical ethics, incorporated in its very being—the *lex non scripta* of every honorable medical man in this and every other civilized country

But here is the point of friction, and the origin of this trouble It is well known that a body of ambitious medical men and specialists in the City of New York, believing themselves to be superior to the American Medical Association, of which they were members, boldly undertook to set aside the Code of Ethics and proclaimed their right to hold professional consultations with irregular practitioners of medicine of every description The National Association, as in duty bound after this revolutionary procedure, refused to admit their delegates, and this proper action of the Association was endorsed by every State Medical Society[1] But, these eminent men of New York, justly honored for their high medical attainments, have assumed to stand at the head of the medical profession and to control and govern medical thought and action, and have used every opportunity and means ever since, to justify their antagonism to the Association How well they succeeded, at least for a season, is shown in their capture of the Committee of Seven, the appointees and agents of the Association, and so controlling their action as to have themselves placed above the Association, and so adroitly laid their plans as to draw in the *Medical News* of Philadelphia, which, although professing to love the *Code of Ethics* and be a friend of the Association, has written and said more to injure and break down both, than all other medical journals combined, not excepting the two leading journals of New York, the open enemies of the Code of Ethics and the Association The *Medical News*, not content with sowing the seeds of discord and strife among the physicians at home, has sedulously used its influence in foreign countries, there disseminating misrepresentations of our divisions, to prejudice the medical mind of all Europe against the Association, and thereby prevent a successful meeting of the International Congress, unless these ambitious schemers of New York and their allies can dominate the entire medical profession of this country, and use the Association to further their own personal preferment The bitterness of the *Medical News* is further evinced in its eager hunt after and republishing of every disparaging paragraph and sentence that has appeared in the medical journals of the country whose editors have hoped to gain notoriety and greatness by aping the *News* and the New York journals in their abuse of the action of the Association, when, in fact, they have been outrageously misrepresenting the views of their readers and the medical sentiment of the country, much to their injury and the mortification of their friends

We cordially and heartily appeal to the profession, and beg that they will send as delegates to the Association, in May, their very best men, men of culture, of broad conceptions and conservatism, and of mental and moral stamina, and that while every manly and honorable effort shall be honestly made to pacify and harmonize all of our dissensions, the honor and dignity, the authority and the National and representative character of the American Medical Association will be triumphantly sustained

RICHARD H DAY,
Ex-President Louisiana State Med Soc
Baton Rouge, La , March 7, 1886

NECROLOGY

ALEXANDER Y P GARNETT, JR , M D

The record left behind us when death comes is the heritage of our friends, and in part the legacy which belongs to society Hence it is meet and proper that the good deeds, exemplary conduct and noble character of those who die should be transmitted to posterity as an example to follow and a career to emulate Recognizing this truth, we are unwilling that the untimely death of Dr Alexander Yelverton Peyton Garnett, Jr , which occurred on the 12th of March, 1886, in Washington, should receive only the brief mention of that event

Dr Garnett was born in Washington, on September 18, 1855, received his academic education at the institution of Mr Charles B Young, subsequently graduating in the old William and Mary College, of Virginia He was always of delicate physique, and when but 17 years of age he was sent to Southern California, where he spent one year, returning home in apparent robust health After being graduated at William and Mary, he commenced the study of medicine with his father, in Washington, and matriculated in the National Medical College, in Georgetown, D C , from which he was graduated two years afterwards He then entered the Medical Department of the University of New York, from which he graduated in the following year, and obtained a position in the Charity Hospital of New York Returning home in 1885, he associated himself in the practice of his profession with his father During the short period his health permitted him to engage in practice, he acquired a phenomenal popularity—courteous, tender, careful, and patient in dealing with his patients he never failed to secure their confidence and esteem In August he was taken with a severe attack of rheumatic fever, which at once developed a severe rheumatic carditis, involving the valves and resulting in dilatation From that date his disease seemed to steadily progress, the distressing and fatal consequences following in rapid succession and terminating in his death on Friday, March 12

In the capacity of Assistant Demonstrator to the National Medical College he had commenced a course which was destined, in the near future, to place him in the highest and most responsible positions In all the relations of life, from his boyhood to the day of his death, he was universally admired and beloved The multitude of letters of sympathy and condolence received by his family from all parts of the country attest the wonderful power he possessed to make friends, and the wide spread sympathy and respect shown by those who attended his funeral manifested the hold he had already taken up on the admiration and regard of his fellow citizens in Washington As an evidence of the high regard in which he was held by his fellow associates in the Colleges and Hospital of New York, he received during his illness testimonials in flowers, and the most affectionate letters Professor William H Welch, of the Johns Hopkins University, thus speaks of him in a letter of condolence to his parents "I wish to tell you my deep sympathy in your great affliction, and to express to you the sincere esteem and attachment which I had acquired for your son I became well acquainted with him during the time he worked in my laboratory in New York His amiable and manly character, his enthusiasm, and the marked ability which he showed in his studies with me led me to anticipate for him a useful and successful professional career"

---

[1] Except the New York State Medical Society

At a special meeting of the Washington Obstetrical and Gynæcological Society, held on Friday, March 12 1886, the following preamble and resolutions were unanimously adopted

WHEREAS, This Society has learned of the death of Dr A Y P Garnett, Jr, who died at his residence in this city after a long and painful illness, therefore be it

Resolved, That in the death of Dr Garnett, Jr, this Society has sustained the loss of a member who was distinguished for his exemplary conduct, his uniformly courteous and genial manners, and for his professional zeal and acquirements

Resolved, That we most deeply sympathize with his sorrow-stricken family, and offer them this expression of our sincere condolence in their great bereavement SAMUEL S ADAMS,
A F A KING, *Pres't* *Cor Sec'y*

At a meeting of the Medical Society of the District of Columbia, the following resolutions were adopted

Inasmuch as it has pleased Almighty God to visit us again with affliction by removing from our midst Dr A Y P Garnett, Jr, who departed this life on the morning of March 12th, therefore

Resolved, That we hereby put upon record our profound sorrow at his untimely death, upon the very threshold of a professional career which gave promise of exceptional brilliancy and usefulness

Resolved, That, as Fellows of the Society, we shall ever cherish an affectionate remembrance of his genial, kindly nature, and lofty, self denying character

Resolved, That we tender to his stricken family our heart felt sympathy and condolence in this their great bereavement, and that we attend his funeral in a body

Resolved, That these resolutions be spread upon our records, published in the daily newspapers, and a copy thereof be transmitted to the family of the deceased THOMAS C SMITH, M D,
Corresponding Secretary

ASSOCIATION ITEMS

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo, on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections"—*By-Laws*, Article 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology—Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky, *Secretary*

Obstetrics and Diseases of Women and Children—Dr S C Gordon, Portland, Me, *Chairman*, Dr J F Y Paine, Galveston, Texas, *Secretary*

Surgery and Anatomy—Dr Nicholas Senn, Milwaukee, Wis, *Chairman*, Dr H H Mudd, St Louis, Mo, *Secretary*

State Medicine—Dr John H Rauch, Springfield, Ill, *Chairman*, Dr F E Daniel, Austin, Texas, *Secretary*

Ophthalmology, Otology, Laryngology—Dr Eugene Smith, Detroit, Mich, *Chairman*, Dr J F Fulton, St Paul, Minn, *Secretary*

Diseases of Children—Dr W D Haggard, Nashville, Tenn, *Chairman*, Dr W B Lawrence, Batesville, Ark, *Secretary*

Oral and Dental Surgery—Dr John S Marshall, Chicago Ill, *Chairman*, Dr A E Baldwin, Chicago, Ill, *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich —Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence WM B ATKINSON, M D,
Permanent Secretary
1400 Pine St, S W cor Broad, Philadelphia

RAILWAY FACILITIES TO THE ASSOCIATION MEETING —The regular through trains of the Illinois Central Railroad from Chicago to St Louis will afford excellent accommodations for delegates who wish to attend the meeting of the American Medical Association at St Louis the first week in May The night express, with Pullman sleeping cars, leaves Chicago at 8 30 P M, and arrives in St Louis at 7 A M The rates are full fare going and one-third for returning

The rates on the Baltimore and Ohio Railway for those coming from the East and South east are full fare coming and one-third fare returning

MISCELLANEOUS

QUARANTINE INSPECTIONS ON THE NORTHERN FRONTIER OF THE UNITED STATES —Official information having been received that the small pox, which recently prevailed as an epidemic in some of the provinces of the Dominion of Canada, is now under control, therefore the regulations issued October 10, 1885, for the maintenance of quarantine inspections on the Northern frontier of the United States, are hereby revoked JOHN B HAMILTON,
Supervising Surgeon-General

AT THE special meeting of the Fifth District Branch of the New York State Medical Association, held in Yonkers on Tuesday, March 23, 1886, it was unanimously resolved that this Branch express its feeling upon the death of the late Austin Flint, M D, as embodied in the following report of its committee, Drs A L Carroll and E H Squibb

The Fifth District Branch of the New York State Medical Association desires to record its unfeigned grief at the decease of its most distinguished Fellow and Founder

In the death of Austin Flint, M D, LL D, a loss has befallen the medical profession which will be sadly recognized as almost irreparable, not only in America, but throughout the civilized world Few men of this generation have done so much to exalt the dignity of our chosen calling, and both at home and abroad, all who knew him conjoined with reverence for his intellectual power and scholarly attainments a sense of personal attachment Whether as an exponent of scientific medicine or as an exemplar of professional integrity and private virtue, he stood conspicuous among the best of his contemporaries, and at the ending of a life without reproach, of a career lavish in benefactions to mankind and rich in well-merited honors, no enmity will slur his memory, no jealousy dispute his leadership

J G PORTEOUS, M D, E H SQUIBB, M D,
President *Secretary*

PALATABLE QUININE, REMARKABLE TOLERANCE —DR E F INGALS, of this city, recently ordered for a child two years of age fifteen tablets of quinine with chocolate, each containing one grain of quinine. One half of a tablet was to be taken three times a day Shortly after the administration of the first dose the child secured the box and ate all the tablets, thinking it candy *No evil effects followed*

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM MARCH 20, 1886 TO MARCH 26 1886

Asst Surgeon John J Cochran, ordered for duty as Post Surgeon, Ft Mason, Cal

Asst Surgeon A S Polhemus, ordered for duty at Presidio of San Francisco, Cal (S O 18, Dept Cal, March 15, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING MARCH 27 1886

Martin, H M, Surgeon, detached from "Independence" and ordered to the "St Louis"

Guitéras, D M, P A Surgeon, detached from Navy Yard, Pensacola, and wait orders

Ross, J W, Surgeon, detached from special duty at New York, and ordered to Pensacola

Eckstein, H C, Surgeon detached from the "St Louis" and placed on sick leave

Means, V C B, Asst Surgeon, detached from the "Vermont" and ordered to the "Shenandoah"

Beaumont, N H, Surgeon, detached from the "Enterprise" and wait orders

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED MARCH 27 1886

Wyman, Walter, Surgeon, detailed as chairman of Board for physical examination officer Revenue Marine Service March 27, 1886

Sawtelle, H W, Surgeon, granted leave of absence for thirty days March 27, 1886

Irwin, Fairfax, Passed Asst Surgeon, granted leave of absence for seven days March 22, 1886

Ames, R P M, Passed Asst Surgeon, detailed as recorder of Board for physical examination officer Revenue Marine Service March 27, 1886

White, J H, Asst Surgeon, granted leave of absence for three days March 23, 1886

Bailhache, P H, Surgeon, detailed as chairman Board of Examiners March 15, 1886

Fessenden, C S D, Surgeon, detailed as member Board of Examiners March 15, 1886

Purviance, George, Surgeon, detailed as recorder Board of Examiners March 15, 1886

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI | Chicago, April 10, 1886 | No 15

ORIGINAL LECTURES

EXOPHTHALMIC GOITRE, DYSPEPSIA, PROGRESSIVE MUSCULAR ATROPHY, CHRONIC DIARRHŒA

A Clinical Lecture Delivered in Jefferson College Hospital on February 25,

BY ROBERTS BARTHOLOW, M D ,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS IN THE JEFFERSON MEDICAL COLLEGE AND PHYSICIAN TO THE HOSPITAL

The first case, gentlemen, that I will bring before you to day, is one that will well illustrate the method of therapeutics as based upon a physiological basis, about which I have already spoken to you on several occasions Exophthalmic goitre, as you no doubt are aware, is a disease characterized, so to speak, by four sets of symptoms we have an implication of the eyes, they are prominent and protruding, we have an implication of the thyroid gland, which is hypertrophied, we have a dilated condition of the blood-vessels generally, and we have the heart affected, in so far as its action is increased in frequency and in force We have, then, this complexus of symptoms in typical cases, but of course it is not in every case that we have all of them present In this case, for example, there is no protrusion of the eyes, though the other symptoms are all well marked

Now observe this young man's general appearance, if you please, see his type of skin, now he is sitting quiet and has been for some time, and yet you notice that his skin is redder than it should be normally When he makes any exertion, simply that of walking, or goes into a warm room, there is a very decided flushing, not only of the face, but of the whole body, in other words, there is at all times a dilated condition of the peripheral vessels, which is increased by the least exertion Such a state of the cutaneous circulation is always present in this disease, and the temperature is naturally higher than it is in health, which you would expect Well then, we have also an increased rapidity and force of the heart's action, which is really a compensatory augmentation, made necessary by the dilatation of the peripheral vessels, in order that the circulation may be properly maintained therein Well now, where shall we look for an explanation of these phenomena, which we must recognize as due to a paresis of the vaso motor nervous system? well, so much for this cause, but that we may have a comprehensive view of the disease, we must endeavor to look further and ascertain, if possible, what has been the ultimate cause of this paresis of the vaso motor system There seems, from clinical experience, no grounds for doubt that some mysterious and as yet but imperfectly comprehended connection exists between this hypertrophied condition of the thyroid gland and the paretic condition of the vaso motor system Just how the connection acts we are not prepared to say, but that it does exist I think there can be no doubt

As I have already said, in this case we have no protrusion of the eyes, but we have a marked enlargement of the right half of the thyroid gland When I place my fingers over this gland I can detect a very distinct pulsation therein, not confined to the skin alone, for, on somewhat deep pressure, I can also feel this pulsation deep down in the tissue of the gland itself Now I have said that this gland exerts a mysterious influence, let me revert to it again for a minute You are all no doubt familiar with the fact that very peculiar effects follow the removal of the thyroid gland, and you have also, no doubt, heard of the disease called myxœdema, which is characterized by, and is the result of, atrophic changes in this gland, just the reverse of what we have in this case So that you see this body certainly must play some important part in the economy, though just what it is we do not know Here, instead of atrophic, we have hypertrophic changes, and the vaso motor nervous system affected in consequence

Well now, as I have said, we will treat this case from a physiological basis, we will use such drugs as are calculated to antagonize the conditions that are here present In my didactic lecture this morning I was discussing the therapeutic properties of the two drugs, nitrite of amyl and nitro glycerine, and I told you that if you were to administer nitrite of amyl to a patient you would produce, in consequence thereof, a fulness and a throbbing of all the blood-vessels, just such a condition as we see so well marked in the case before us, therefore, reasoning from a physiological standpoint, we should obviously employ such drugs as are calculated to oppose, to antagonize this condition Well now, what drugs are the antagonists of such articles as nitrite of amyl and nitro glycerine? We have several, prominently among them being ergot, which not only theoretically opposes this action, but which has been amply demonstrated by clinical experience to do so Dr Barnes, of London, has reported cases of hour glass contraction of the uterus—which is a condition that may be likened to that produced by ergot, and which is a condition that does not usually readily subside spontaneously—wherein he has secured most satisfactory results from the use of nitrite of amyl, thus very clearly demonstrating the antagonistic action of these two drugs

Having here, then, a condition analogous to that which would be induced by the use of nitrite of amyl, it is obviously logical, arguing from the basis of the antagonism of drugs, that we should employ ergot to combat such a condition I will therefore order ergot for this patient, and I ask, is there any other drug that has this same character of antagonistic action? to which I answer, yes, that such virtue is undoubtedly possessed by digitalis, so that I will order a pill containing two grains of Squibb's aqueous extract of ergot, and one grain of powdered digitalis leaves, one of these pills to be taken thrice daily Well, now, when we have ordered these pills have we performed our full measure of duty? No, by no means We must then direct our attention to the enlargement of the thyroid, for the ergot and the digitalis are intended to combat the abnormal state of the circulation

When he throws back his head you can plainly see how decidedly enlarged this gland is To reduce this enlargement, I know of no better remedy than the local use of an ointment of the red iodide of mercury, which will usually relieve a thickened, hypertrophied condition of the thyroid The Indians, from whom we have derived this remedy, always rubbed it in in the direction of the rays of the sun I do not know whether this procedure has any superiority over any ordinary method of applying it, but it can certainly do no harm, and we might resort to it The patient might sit in front of a window, so that the rays of the sun would fall on his throat There are certain rays of the sun outside of the solar rays, that is to say, the chemical or actinic rays, that certainly do have an influence on vegetable life, and may have some influence on animal life, and we might as well avail ourselves of any influence that these rays may possibly have, for, as I have said, they can do no harm I said to use an ointment of the red iodide of mercury Now, a word of explanation will be necessary, or else you may be misled by what I have said This ointment was officinal in the Pharmacopœia of 1870, but is not so in that of 1880, but you can easily make an ointment by using one drachm of the mercury to one ounce of simple ointment, and take a piece the size of the end of your thumb and rub it well in Do this once a day until the skin becomes sore After awhile you will notice that the skin will become dry and the epidermis will peel off, but this does no harm You may then suspend the ointment for awhile, recommencing it later and using it a little more cautiously than at first

DYSPEPSIA

This young man comes to us complaining of vomiting This may seem like a trivial case to bring before you, and the man does not look as though he was very ill, but it is just these apparently simple cases that will baffle you if you do not cultivate the habit of critically inquiring into their cause and nature You must not despise small matters, for if you do you will frequently overlook greater ones There are several points of interest about this case He tells us that he vomits some time after eating, and that the ejected matter is liquid and occasionally there is some solid matter mixed with it When he was in the waiting room awhile ago he was given a draught of water, and after about half an hour it was regurgitated Now there is a difference between vomiting and regurgitation that I will explain to you In vomiting there is not only a contraction of the stomach, but the abdominal muscles also take part in the act, whereas in regurgitation it is only the stomach and œsophagus that are involved, and regurgitation may occur without any implication of the stomach even, being simply an inversed peristaltic action of the œsophagus We will sometimes have cases where the œsophagus is dilated, where a pouch is formed in some portion of its course, from which the food, after remaining therein for a time, is regurgitated Such is not the case here, for the contents of the stomach itself are regurgitated That is the problem that confronts us, namely, to find out why this regurgitation takes place, and until we have done so, we cannot hope to institute a rational course of treatment that will inure in the least to the patient's benefit

The matter regurgitated is, as I have told you, liquid, and I assume that the man has a form of dyspepsia Well, what form is it? If we were to give this man remedies directed to the relief of the vomiting, even though we were to restrict his diet, as such restriction is usually understood, we would most likely fail to effect a cure, because there is a special indication in the case that must be taken into consideration, and it is just here, in recognizing and appreciating the significance of these little symptoms, that the superiority in diagnosis and the greater success in treatment of one physician over another is to be found We must work out our therapeutics on the fundamental principle that the matter here regurgitated is liquid, hence the patient must be restricted to a dry diet, he should confine himself to solid aliment, and take only that amount of liquid that is absolutely necessary to the proper performance of his functions Of course, he could not absolutely abandon liquids, for they seem to be really more essential to health and life than do solids This fact was abundantly demonstrated by Dr Tanner, in his famous fast He found it comparatively easy to get along without solid food, but his great trouble was in giving up liquids, so much so that after seven or eight days his desire, his longing for them, became well-nigh irresistible So that I say water is really more essential to the performance of the functions than is solid food, we could get along for a longer time without solid foods than we could without liquids When we do not use liquids, the liquid constituent of the blood becomes very much diminished thereby, the blood, in consequence, is thickened, and so an embarrassment of the circulation ensues Taking this fact into consideration, it would not do to rigidly exclude liquids from this man's diet, but, to repeat, he should take them only in such quantities as are absolutely essential. He should take no fluid at meals, unless it is necessary to aid him to masticate his food, and then he should take only a few drops at a time. He should also avoid all articles that are liable to undergo fermentation in the stomach. He doubtless eats fats, which undergo fermentation, with the liberation of butyric acid, and also, no doubt, saccharine articles, that liberate acetic acid and carbonic acid gas, and I will venture to say that he is troubled with eructations of gas, well now, he should avoid such articles. To summarize, his diet should be dry and should consist of such articles as are free from saccharine and oleaginous matter. Now, in addition to the regulation of the diet, which is the most important consideration, what drug can we use? I have, in such cases, derived very good results from the use of sulphurous acid (mind, I say sulphur*ous* and not sulphur*ic*), of which we will give him ten drops (of the dilute acid) in a wineglass of water, thrice daily, before meals. This drug, in conjunction with the regulation of the diet, will do a great deal of good.

PROGRESSIVE MUSCULAR ATROPHY

The characteristic attitude of this woman's hands is so striking that we have no trouble in making a diagnosis. You see that she has wrist drop, but I do not say that she is suffering from lead poisoning, with which trouble you might, at first sight, confound this condition, because she is not so affected. You must remember that there are many varieties of wrist drop. So far as the cause is concerned, the condition is not always due to plumbism, and you should bear this fact clearly in mind, else you will be often misled in your diagnosis. You will also note how all the muscles about the fingers, the interossei very perceptibly, are wasted. When I examine the shoulder, I feel the spine of the scapula very prominent, while both above and below it, more especially below, there is a marked depression, which tells me that there is a wasting of the muscles in this region. She can raise her arm from her shoulder, by which I know that there is still power in the deltoid, but this power is noticeably diminished. Now, then, we have evident wasting or atrophy of the muscles in a muscular young woman, who works in a manufacturing establishment. It is a case of progressive muscular atrophy.

This disease is not very common in women, but it does quite often occur in men under just the conditions that we have here, that is to say, it usually occurs in strong, muscular men, and is the result of some over exertion. It is sometimes hereditary, that is to say, a tendency to atrophy may be inherited, and in such cases over-exertion will light up the latent inheritance into activity. It will be observed, that is this tendency, in certain family groups. It nearly always commences in the fingers, and first manifests itself by sensations of pain and trembling of the fingers and hands. So also, in these parts, there is always a reduction of temperature. Now we will test the electrical reaction of the muscles, you see that every interruption produces a contraction of the muscles, but it is impaired, it is not as marked as normal, and it is confined to certain groups of muscles, but although the muscles are much wasted, they yet respond fairly well to the faradaic current, they react quite well to the direct, but less so to the indirect current. Well, now, what does this response indicate? It tells us that all the muscular elements are not gone, that while the muscular tissue is, to a great extent, replaced by fibrous tissue, it is not wholly so usurpated, and this is a point of exceeding great importance, for upon the loss or the conservation of this reaction will our prognosis depend. Since we find that the muscular tissue still remains, we may hope to rejuvenate it. I would say that in this case there is wasting of the muscles, and that while the response is feeble, yet they do respond to direct faradaic excitation, and much more readily to galvanism. We have, then, a condition where the muscles are not completely changed in character, but are mainly atrophied, the muscular elements are in fairly good condition, and we may therefore hope to benefit the patient. Let us see what the difference in temperature is, and for this purpose we will use one of these surface thermometers that are made by Hawkesley, of London, and are so arranged that a large surface of mercury is exposed to contact with the skin. We might make comparative observations of temperature, if we wish, though it is sufficient for all practical purposes to know that it is lower in the affected part, and we usually find it several degrees lower. In this case we find the temperature of the cheek to be 99°, while that of the thumb is only 92°, a difference of seven degrees, which is very great even in this disease.

The question of the seat of the lesion in progressive muscular atrophy has been greatly discussed and is, as yet, unsettled. One of the latest authorities who has written on the subject is a distinguished professor of Heidelberg, who has contributed a lengthy monograph, in which he claims that the disease really begins, that the lesion is situated at the point where the disease first becomes manifest, that it is situated in the terminal filaments of the motor nerves, and that it is transmitted to them through the muscles, having been really in the first place an affection of the muscles themselves, from which theory the disease would seem to be rheumatic somewhat in nature. The opposite view is that the lesion is situated in the multipolar ganglion cells of the anterior cornuæ of the spinal cord. This case would seem to indicate that the theory of the Heidelberg professor was the correct one, for the electrical responses would cause us to think that the disease was purely a local one, and consisted simply in an atrophy of the muscles without, as yet, any implication of the nerves.

Well, now, assuming this to be the correct theory, what treatment would be indicated? Well, as the muscles respond to the faradaic current, it would be obviously proper for us to excite them thereby until they are restored to their full volume and normal reaction. If they did not respond to faradism we would employ galvanism, but as they do respond to the former, it will be used. Well now, is there anything else we can use in addition to electricity? Yes, we can probably accomplish a great deal by local medication, we will inject $\frac{1}{60}$ of a grain of strychnia into the affected muscles about three times a week, and will also look to improving the general health.

CHRONIC DIARRHŒA.

This young man tells us that he has chronic diarrhœa, that is, to speak more correctly, he will have attacks of diarrhœa every now and then, which will last for several days each time. The stools are liquid, watery and yellow in color. He is never constipated, the passages being always more or less soft in consistence. I have brought the case before you more especially to speak of its treatment. The discharges contain no pus, no blood and no mucus. Now, here again we will base our treatment of this case upon physiological principles. There is evidently a congestion of the intestinal mucous membrane, and we ask what drug will combat such a condition. There is none better than belladonna, and we will give this patient 15 drops of the tincture thrice daily, we will give it alone, that we may unequivocally note the effect. Belladonna is sustained in its action, and it may therefore be that after a while two doses will be found to be sufficient.

ORIGINAL ARTICLES.

EARLY AND REPEATED TAPPING IN CASES OF ASCITES.[1]

BY AUGUSTUS P. CLARKE, M.D.,

OF CAMBRIDGE, MASS.

I was called on March 17, 1879, to attend A. V. S., a Hollander, aged 56 years. He was a cabinet-maker, and while returning a distance of two miles from his work began to suffer from a severe attack of dyspnœa. He had always been well until that time, when he walked somewhat faster than usual. The walking seemed to be the first exciting cause of his malady. When I saw him he was quite unable to lie in a horizontal posture on account of the extreme dyspnœa. Counter irritants, expectorants and stimulants, with ammonia, afforded some relief, and the next day he was much easier.

I did not visit the patient again until January 20, 1880, when I was called, and learned that he had suffered much in the meanwhile from occasional attacks of dyspnœa, as well as from œdema of the feet. At this time he was suffering from orthopnœa. His feet and legs were greatly swollen, and his urine was scanty, the amount voided in twenty-four hours being not much over a pint. The urine, when boiled, gave a precipitate of albumen, one sixth, the specific gravity was 1014. Both lungs were evidently more or less œdematous, and this appeared to be the cause of the orthopnœa. The patient also suffered a good deal from cerebral symptoms, he was delirious, and unable to sleep, and hypnotics acted badly. He had always been of temperate habits. He also suffered from dimness of vision, the ophthalmoscope revealed marked retinitis of both eyes. The infusion of digitalis in full doses was given, and followed up until the physiological and therapeutical action of that drug was obtained. Elaterium in pill, gr. ⅙, was given every second or third day. Sometimes the pill had to be repeated the same day. I also scarified the legs and feet from time to time, and by this means I succeeded in reducing the swelling very much. My record shows that I made upwards of a thousand punctures with the lancet. The scarifications were followed by no untoward symptoms, and the patient often requested the scarifying to be done for the relief afforded.

Subsequently Martin's elastic bandage was applied to each leg from the toe to above the knee. These afforded him a good deal of relief, and after he had learned their uses and value he would rarely be without them. His symptoms at length became better, the swelling of the extremities was markedly less, and the dyspnœa much less urgent. The action of the lungs became more regular, and the pulse and temperature were nearly normal, but he began to suffer more from ascites, and though the diuretics and hydragogues were freely employed, they had but a limited influence on the fluid effused into the peritoneum. Fluctuation became distinct, but I waited until August 20, 1880, when with the aspirator I removed four quarts of fluid from the cavity of the peritoneum. This gave the patient considerable relief, and on September 11 I again drew off eight quarts. The patient bore the loss quite well, and afterward appeared much better.

On October 13 I drew off with a small trocar five quarts. On November 14 I drew off four quarts, and January 18, 1881, I drew off with a larger trocar 8½ quarts, March 18, 11½ quarts, April 21, 15½ quarts, May 14, 16 quarts, June 10, 18 quarts, July 16, 16 quarts, August 6, 14½ quarts, September 3, 16 quarts, October 1, 17½ quarts, October 28, 13 quarts, January 5, 1882, 12 quarts, February 10, 14 quarts, March 14, 14½ quarts, March 27, 17 quarts, April 17, 18 quarts, May 8, 17 quarts, May 22, 13½ quarts, June 5, 12 quarts, July 11, 14 quarts, August 22, 12½ quarts, March 30, 1883, 11½ quarts (after a period of six months and eight days), August 14, 14½ quarts (after a period of five months), September 7, 12 quarts, October 21, 15 quarts, December 17, 13 quarts, January 25, 1884, 14½ quarts, February 29, 15 quarts, April 7, 17½ quarts, July 7, 13½ quarts, October 3, 13 quarts, November 19, 16 quarts, December 17, 12 quarts; February 21, 1885, 13 quarts, and April 17, 13 quarts. The number of tappings, including the two aspirations, was in all thirty eight, and the quantity of fluid removed by this means of treatment amounted in all to 506½ quarts (32 fluid ounces contained in each quart, or 126⅝ gallons).

After each tapping the patient was always better, and was often able to go out of doors, especially in warm weather. Soon after I began to tap him he gained in strength, nearly all the œdema of his lower limbs disappeared, his appetite became better, and for the most part he needed no quieting medicine, indeed, he took but little medicine after this line of treatment was adopted The patient also began to take quite a lively interest in various matters, such as reading the daily papers, until the accumulation of fluid become excessive The urine became of higher specific gravity, for a long time, on boiling, was only a little opalescent, and there was a tendency to a return of its normal constituents The quantity of urine for a healthy person was only approached, it never exceeded 1,000 cc, and for the most part was only 500 cc daily Accurate measurements were kept for a long period daily Whenever the quantity of urine for any considerable time was increased, the symptoms and condition became much better, and whenever the quantity of urine was markedly less, say between 400 and 500 cc, the patient was more uncomfortable

---

[1] Read before the Cambridge Society for Medical Improvement, January 25, 1886.

The longest period between the tappings was six months and eight days This was from August 28, 1882, to March 3, 1883 The next longest period was that of five months, from March 3 to August 4, 1883 During these periods the patient took from time to time a good deal of fluid extract of jaborandi and of ergot The patient felt so far recovered for awhile as to be out a little almost every day The urine during this time was greatly improved and he gained in strength For several weeks the circumference of his abdomen over or just below the navel was no more than it often would be three or four days after a tapping Toward the close of these periods the fluid increased quite rapidly, and the tension became intolerable The patient usually recovered well after each tapping Sometimes, however, he would feel a little weak, but a small draught of wine or of milk, or sometimes only water, was all that was needed to revive him He usually kept his lounge or bed for a day or two, and then dressed himself as usual A short time before he was tapped in December, 1884, he met with a severe fall down a long flight of stairs He was severely contused about the right shoulder, left hip, leg and other parts, but he sustained no marked injury upon the abdomen

During the early part of his sickness he had considerable febrile disturbance, the pulse often going as high as 115, and the temperature as high as 101 5° to 102° F, but for a long time before his death the pulse was normal or nearly so, and there was no rise of temperature Immediately after being tapped the temperature would occasionally be slightly sub normal At first the patient suffered very much from constipation, but for the last three years of his life the bowels were very regular Though the urine was scanty, and at first highly albuminous, very few casts of any kind were observed, or other abnormal products of a microscopic character After he was tapped he assumed the horizontal posture

The liver, for the last two years or more, could be distinctly felt as a hard and contracted globular mass high up in the right hypochondriac region It was evidently not more than one half the natural size At first the area of the liver by percussion appeared to be unusually extended, and this increased size at first, occasioned by congestion or inflammation, would account in part for the increased temperature and other febrile disturbances which appeared so early in the case The diminished flow of the urine was under the circumstances indicative of congestion of the portal vein The increased bulk of the liver, and the commencing ascites and the œdema of the lungs must have greatly interfered with the action of the diaphragm, and have been the cause of the extreme dyspnœa which also so early presented itself

The last six months or more of the patient's life showed a general failing of the vital powers, the appetite was poor, though the patient was not greatly emaciated About May 1 1885, he began to be troubled with dysenteric stools These exhausted him more and more, so that his death could be considered rather as the result of gradual asthenia than of any peculiar lesion or organic phase of the disease The tapping, as already stated, gave immediate relief from the dyspnœa and other urgent symptoms, and the patient, though dreading the operation, at length became satisfied that he could not be comfortable without resorting to it He showed me an account which he had found in reading an old Dutch author, that Peter the Great had saved or prolonged the life of his wife, Eudoxia Feodorovna, by tapping her for a dropsical malady This art, it appeared, Peter had learned by witnessing the operation as performed by the chirurgeons when he was a young man and an inmate in a European hospital This little bit of history served to stimulate my patient by giving hope and confidence in the treatment as the only means for his relief He died on May 13, 1885

In regard to my own experience, reference to the recorded cases of ascites from various causes coming under my care up to the time I was called to treat the case here reported, shows that six cases recovered, one case after a single tapping, one case after three tappings, two cases after four tappings each, one case after three tappings, each tapping varying from two to three months, and one case, that of a lady aged 51, after six tappings, each tapping varying from six weeks to three months There was no sensible return of the fluid in her case after a period of two years After that she left the State for the provinces, and has not to my knowledge since returned One case was that of a man, aged 64, whom I tapped for ascites four times during a period of three years He was greatly relieved, but afterwards died from some abdominal disease complicated with acute pneumonia

Two cases were males, aged respectively 37 and 42 These were phthisical patients, each much troubled with ascites One of them was tapped twice, and the other three times during a period of eleven months They were greatly relieved, but both finally had to succumb to the original malady, which was far advanced before this treatment was undertaken

Another case was that of Miss S, aged 17 She was under my care from July to September, 1878 She had Bright's disease She had previously been under the treatment of two homœopathists for what they at first supposed to be "rheumatism and neuralgia of the spine," until the legs and abdomen began to swell, when they were dismissed and I was called and diagnosticated, with Dr Holt's assistance,

Bright's disease We were compelled to tap her twice within two months, but she finally died in a uræmic convulsion Her abdomen was enormously distended before the tapping This was undoubtedly a case of acute parenchymatous disease of the kidney

Another case was that of a lady aged 60 years She had malignant disease of the stomach She also had ascites The fluid, though moderate in amount, was a source of great suffering, and she required large doses of morphine She was under my care from February 5th to April 25th, 1878, the time of her death I tapped her twice She experienced marked relief from each tapping until the fluid again accumulated, which did not occur until after the lapse of four weeks

The twelfth case was that of Miss P, aged 43 years She suffered from extreme dyspnœa and great throbbing at the neck, which seemed indicative of aneurism Elaterium and digitalis removed all the swelling of the extremities and abdomen This was from November 1 to December 16, 1879, but on December 31 following she had a recurrence of the dyspnœa, with marked ascites Between this date and March 10, 1880, she was tapped twice, with much relief after each operation On April 3 she died in consequence of the enormous aneurism, which after death proved to be at the arch of the aorta

I will now briefly relate a case which has been of unusual interest to me Mr B, aged 76 years, upon whom I had operated three times during the months of May and June, 1884, before I succeeded in completely curing him of old hæmorrhoids attended with severe prolapsus of the rectum After this the patient had entirely recovered, so that he was able to be out as heretofore during the months of August and September In November following he was run over by a heavy express wagon while in Boston, and was afterwards exposed to severe cold and wet, and was chilled On November 11 he was unable to void urine His legs, genitals and abdomen were enormously swollen, and the patient became stupid, his tongue was dry and brown With great difficulty I succeeded, on that day, in drawing off about a pint of urine, which was of a dark, smoky color On the next day he was much worse, was still stupid and unable to comprehend anything of consequence when spoken to, and I found it necessary to slit up the prepuce about an inch and a half before I could reach the urethra with any kind of a catheter whatever, so great was the swelling that had extended to these parts Only a small quantity of urine, however, was found in the bladder With the assistance of the apothecary, Mr H S Andros, who had frequently assisted me in the case of A V S, I aspirated the abdomen and removed four quarts of fluid The next day I tapped again, and the amount of fluid now removed was nearly a water-pailful After that the patient was able to void his urine, and by the use of elaterium he gradually made a complete recovery, except for a troublesome pruritus, the absence of the tendon reflex and a tendency towards locomotor ataxia The patient is able to be out of doors almost daily, and walks quite well Up to the time (1880) when I began to treat my patient, A V S, almost all authorities refer to tapping of the abdominal cavity in ascites to be had recourse to only as a last resort In THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Vol 1, No 10, will be found an original article "On Early Tapping in Cases of Ascites" This article, by Austin Flint M D, was read at the meeting of the British Medical Association in Liverpool, on August 2, 1883, and which was about three years after I began to treat my patient, whose case I have given *in extenso* at the beginning of this paper Dr Flint, in speaking of the advantages of early tapping in cases of ascites, gives a report of twelve cases illustrative of the benefit of such tapping He refers to a series of forty six cases in an article "On Hydro Peritonæum," which he published in the *American Journal of Medical Sciences* in the year 1863 In his article of 1883 he again states that more writers than heretofore recommend tapping in cases of ascites "only when the dropsical accumulation has occasioned an alarming interference with respiration, and after other means of treatment have proved ineffectual" In a foot-note he mentions "as exceptional instances" some cases occurring in Dr Frederick T Roberts's "Hand-Book of Medicine"

QUININE IN SCIATICA—UNUSUAL SUSCEPTIBILITY TO MORPHIA, WITH TOLERANCE OF THE DRUG

BY WM G EGGLESTON, M A, M D,

OF CHICAGO ILL

The average length of time, I believe, required for a subcutaneous injection of morphia to take effect as an anodyne is about fifteen minutes, for the hypnotic effect a still longer time is required The following case is interesting on account of the facts that the drug acted in a remarkably short time, and that at times there was no appreciable interval between the anodyne and hypnotic effects, and on account of the favorable action of quinine in a case of sciatica

On March 13, at 8 P M, I was called to see A F H, æt 54, who who was suffering from a severe attack of sciatica on the right side For sufficient reasons I administered morphia, gr $\frac{1}{6}$, with gr $\frac{1}{200}$ of atropia As usual when I administer any drug subcutaneously I noticed the time While replacing my syringe in the case the patient threw his arms across his chest, said "All right," and was asleep immediately This was just four minutes after the injection was made Being somewhat alarmed at such unusual susceptibility, I aroused the patient and spoke to him I had no difficulty in awakening him, and he seemed surprised that I had aroused him He said that the drug had had a similar effect two or three years ago when he had taken it, and his wife confirmed his statement Upon this information I determined to set aside my proposed treatment of the case with injections of ether, and to use morphia, with cod liver oil and phosphorus internally

On the next day, March 14, I administered gr $\frac{1}{6}$ morphia, with gr $\frac{1}{200}$ of atropia, at 9 A M The patient had slept well the night before until about

3 30 A M , after which the pain began to return slowly The injections were made superficially behind the right trochanter on the affected side Within three minutes the patient announced that he "felt it" in his arms—"a kind of numb feeling down through the elbows" Within another minute he said that he was perfectly easy This time, however, he did not fall asleep Another injection was made in the evening, the pain being annoying, but not so great as on the previous afternoon Within a few seconds less than four minutes he began to say that he felt better, but was asleep before the sentence was completed In the morning he had commenced taking teaspoonful doses of cod liver oil and phosphorus (gr i–f℥jss)

March 15 —Patient said that he had misinformed me as to the element of periodicity in the attacks of pain before I was called in He now remembered that the first attack, about five days previously, had come on at 8 P M , the second about 7 30, the third a little earlier, and the attack on the previous day about 5 P M I ordered bisulphate of quinine gr xxx, one half to be taken at 2 P M , the remainder at 4 o'clock

March 16 —The pain did not come on yesterday afternoon, and the patient slept all night The quinine made him "pretty drunk," he said, and yielding to his very earnest desire I ordered none for this afternoon The pain came on at 5 30 P M , and I gave morphia at 7 30 As before, he was at ease and asleep in four minutes The only subjective sensation was the numb feeling down the arms There was no nausea whatever, and no itching of the nose I ordered bisulphate of quinine as before, to be taken at 2 and 4 P M

March 18 —No pain yesterday Quinine continued for to day Phosphorus in oil reduced to gr $\frac{1}{50}$ at a dose

March 19 —No pain yesterday Quinine continued for to day, two doses of gr x each

March 24 —There has been no return of pain, and the patient has been at work since March 20 He continues the cod liver oil and phosphorus (now gr $\frac{1}{100}$ at a dose), and is taking Fowler's solution, gtt vj after each meal His appetite is excellent, bowels perfectly regular Ordered pil hydrarg gr v to be taken on the first appearance of furred tongue or irregular action of the bowels, and to be followed on the next morning by a Seidlitz powder

March 29 —He reports that he is still improving, and there has been no pain whatever

In regard to the use of cod liver oil in sciatica Anstie has long laid much stress on its importance, as has Dr Ashburton Thompson Anstie insists that fat must be liberally taken So also, in regard to the use of phosphorus, Dr Thompson has used and recommended it for some time He gives it in solution in cod liver oil, gr j—f℥jss One drachm of this is given every four hours The solution is best made by adding the pharmacopœial phosphorated oil to the cod liver oil Dr Thompson has given a table of fifty cases of neuralgia treated by phosphorus, and in several the effects of the drug seem to have been truly remarkable According to him, if marked results be not seen within three days, it is useless to continue this line of treatment The above recorded case is the second (of sciatica) in which I have recently used phosphorus, in large doses, with cod liver oil I am sure that the first case experienced more direct and immediate relief from ether injections than from the phosphorus, and that the second case was cured by quinine Still, I believe the oil and phosphorus to be valuable parallel and after treatment

The amount of quinine used in this case may be thought by many to be excessive But I think that, as a rule, larger doses of this antiperiodic are required to prevent the recurrence of a severe neuralgia than of an ordinary "chill" Again, many are in the habit of administering quinine in 5 grain doses, and claim that the effects are just as good or even better But it is necessary to use 5 or 10 grains more, as a rule, when it is given in this way A protracted personal experience with "chills" has given me a dislike to small doses of quinine (gr v every four hours) in intermittent affections Nor do I think that the value of quinine in neuralgia is limited to the strictly intermittent cases I recall one case in which a severe case of non intermittent (though probably malarial) trigeminal neuralgia was effectually routed by two doses of gr xxx, on two successive days, though the patient had been taking gr iv three times a day for fully two weeks

At any rate, it must be admitted, as has been shown, that large doses of quinine, given at one time for the antipyretic effect, have a more marked effect on the temperature than the same quantity distributed over a long time, and I see no reason to doubt that the same holds true when the drug is given solely as an antiperiodic It is possible, too, that malarial pyrexia and malarial neuralgia differ only in this in the first the nervous explosion is general, and takes the form of fever, in the second it is localized in one or more nerves and causes pain One reason that has been advanced against the giving of one or two large doses of quinine is that it is rapidly eliminated In three experiments Thau found that about three-fourths of the amount given was eliminated in *twelve* hours[1] I use the bisulphate invariably It is very much more certain in its effects, much more soluble, and its effects are therefore more quickly produced Its solubility, moreover, renders it especially adaptable for hypodermatic administration When thus used the solution should *always be brought to the boiling point* in the spoon immediately before it is taken into the syringe This, I think, is the most certain way to prevent sore spots and abscesses after subcutaneous injections of any drug

In regard to the extreme susceptibility to morphia, with the tolerance, without any bad or unpleasant effect whatever, of a dose which acted so quickly, I think that the case recorded is very remarkable That the imagination of the patient had nothing to do with the rapid effect was shown by the fact that a subcutaneous injection of warm water, given experimentally on the second day, had no effect whatever

65 Randolph St

---

[1] Binz found that about two thirds only was eliminated in 48 hours but his results have been questioned

Bright's disease We were compelled to tap her twice within two months, but she finally died in a uræmic convulsion Her abdomen was enormously distended before the tapping This was undoubtedly a case of acute parenchymatous disease of the kidney

Another case was that of a lady aged 60 years She had malignant disease of the stomach She also had ascites The fluid, though moderate in amount, was a source of great suffering, and she required large doses of morphine She was under my care from February 5th to April 25th, 1878, the time of her death I tapped her twice She experienced marked relief from each tapping until the fluid again accumulated, which did not occur until after the lapse of four weeks

The twelfth case was that of Miss P , aged 43 years She suffered from extreme dyspnœa and great throbbing at the neck, which seemed indicative of aneurism Elaterium and digitalis removed all the swelling of the extremities and abdomen This was from November 1 to December 16, 1879, but on December 31 following she had a recurrence of the dyspnœa, with marked ascites Between this date and March 10, 1880, she was tapped twice, with much relief after each operation On April 3 she died in consequence of the enormous aneurism, which after death proved to be at the arch of the aorta

I will now briefly relate a case which has been of unusual interest to me Mr B , aged 76 years, upon whom I had operated three times during the months of May and June, 1884, before I succeeded in completely curing him of old hæmorrhoids attended with severe prolapsus of the rectum After this the patient had entirely recovered, so that he was able to be out as heretofore during the months of August and September In November following he was run over by a heavy express wagon while in Boston, and was afterwards exposed to severe cold and wet, and was chilled On November 11 he was unable to void urine His legs, genitals and abdomen were enormously swollen, and the patient became stupid, his tongue was dry and brown With great difficulty I succeeded, on that day, in drawing off about a pint of urine, which was of a dark, smoky color On the next day he was much worse, was still stupid and unable to comprehend anything of consequence when spoken to, and I found it necessary to slit up the prepuce about an inch and a half before I could reach the urethra with any kind of a catheter whatever, so great was the swelling that had extended to these parts Only a small quantity of urine, however, was found in the bladder With the assistance of the apothecary, Mr H S Andros, who had frequently assisted me in the case of A V S , I aspirated the abdomen and removed four quarts of fluid The next day I tapped again, and the amount of fluid now removed was nearly a water-pailful After that the patient was able to void his urine, and by the use of elaterium he gradually made a complete recovery, except for a troublesome pruritus, the absence of the tendon reflex and a tendency towards locomotor ataxia The patient is able to be out of doors almost daily, and walks quite well Up to the time (1880) when I began to treat my patient, A V S , almost all authorities refer to tapping of the abdominal cavity in ascites to be had recourse to only as a last resort In The Journal of the American Medical Association, Vol 1, No 10, will be found an original article "On Early Tapping in Cases of Ascites" This article, by Austin Flint, M D , was read at the meeting of the British Medical Association in Liverpool, on August 2, 1883, and which was about three years after I began to treat my patient, whose case I have given *in extenso* at the beginning of this paper Dr Flint, in speaking of the advantages of early tapping in cases of ascites, gives a report of twelve cases illustrative of the benefit of such tapping He refers to a series of forty six cases in an article "On Hydro Peritonæum," which he published in the *American Journal of Medical Sciences* in the year 1863 In his article of 1883 he again states that more writers than heretofore recommend tapping in cases of ascites "only when the dropsical accumulation has occasioned an alarming interference with respiration, and after other means of treatment have proved ineffectual" In a foot note he mentions "as exceptional instances" some cases occurring in Dr Frederick T Roberts's "Hand-Book of Medicine"

QUININE IN SCIATICA—UNUSUAL SUSCEPTIBILITY TO MORPHIA, WITH TOLERANCE OF THE DRUG

BY WM G EGGLESTON, M A , M D ,

OF CHICAGO ILL

The average length of time, I believe, required for a subcutaneous injection of morphia to take effect as an anodyne is about fifteen minutes, for the hypnotic effect a still longer time is required The following case is interesting on account of the facts that the drug acted in a remarkably short time, and that at times there was no appreciable interval between the anodyne and hypnotic effects, and on account of the favorable action of quinine in a case of sciatica

On March 13, at 8 P M , I was called to see A F H , æt 54, who who was suffering from a severe attack of sciatica on the right side For sufficient reasons I administered morphia, gr $\frac{1}{6}$, with gr $\frac{1}{200}$ of atropia As usual when I administer any drug subcutaneously I noticed the time While replacing my syringe in the case the patient threw his arms across his chest, said "All right," and was asleep immediately This was just four minutes after the injection was made Being somewhat alarmed at such unusual susceptibility, I aroused the patient and spoke to him I had no difficulty in awakening him, and he seemed surprised that I had aroused him He said that the drug had had a similar effect two or three years ago when he had taken it, and his wife confirmed his statement Upon this information I determined to set aside my proposed treatment of the case with injections of ether, and to use morphia, with cod liver oil and phosphorus internally

On the next day, March 14, I administered gr $\frac{1}{6}$ morphia, with gr $\frac{1}{200}$ of atropia, at 9 A M The patient had slept well the night before until about

3 30 A M, after which the pain began to return slowly The injections were made superficially behind the right trochanter on the affected side Within three minutes the patient announced that he "felt it" in his arms—"a kind of numb feeling down through the elbows" Within another minute he said that he was perfectly easy This time, however, he did not fall asleep Another injection was made in the evening, the pain being annoying, but not so great as on the previous afternoon Within a few seconds less than four minutes he began to say that he felt better, but was asleep before the sentence was completed In the morning he had commenced taking teaspoonful doses of cod liver oil and phosphorus (gr i–f℥iss)

March 15—Patient said that he had misinformed me as to the element of periodicity in the attacks of pain before I was called in He now remembered that the first attack, about five days previously, had come on at 8 P M, the second about 7 30, the third a little earlier, and the attack on the previous day about 5 P M I ordered bisulphate of quinine gr xxx, one half to be taken at 2 P M, the remainder at 4 o'clock

March 16—The pain did not come on yesterday afternoon, and the patient slept all night The quinine made him "pretty drunk," he said, and yielding to his very earnest desire I ordered none for this afternoon The pain came on at 5 30 P M, and I gave morphia at 7 30 As before, he was at ease and asleep in four minutes The only subjective sensation was the numb feeling down the arms There was no nausea whatever, and no itching of the nose I ordered bisulphate of quinine as before, to be taken at 2 and 4 P M

March 18—No pain yesterday Quinine continued for to day Phosphorus in oil reduced to gr $\frac{1}{50}$ at a dose

March 19—No pain yesterday Quinine continued for to day, two doses of gr x each

March 24—There has been no return of pain, and the patient has been at work since March 20 He continues the cod liver oil and phosphorus (now gr $\frac{1}{100}$ at a dose), and is taking Fowler's solution, gtt vj after each meal His appetite is excellent, bowels perfectly regular Ordered pil hydrarg gr v to be taken on the first appearance of furred tongue or irregular action of the bowels, and to be followed on the next morning by a Seidlitz powder

March 29—He reports that he is still improving, and there has been no pain whatever

In regard to the use of cod liver oil in sciatica Anstie has long laid much stress on its importance, as has Dr Ashburton Thompson Anstie insists that fat must be liberally taken So also, in regard to the use of phosphorus, Dr Thompson has used and recommended it for some time He gives it in solution in cod liver oil, gr j—f℥iss One drachm of this is given every four hours The solution is best made by adding the pharmacopœial phosphorated oil to the cod liver oil Dr Thompson has given a table of fifty cases of neuralgia treated by phosphorus, and in several the effects of the drug seem to have been truly remarkable According to him, if marked results be not seen within three days, it is useless to continue this line of treatment The above recorded case is the second (of sciatica) in which I have recently used phosphorus, in large doses, with cod liver oil I am sure that the first case experienced more direct and immediate relief from ether injections than from the phosphorus, and that the second case was cured by quinine Still, I believe the oil and phosphorus to be valuable parallel and after-treatment

The amount of quinine used in this case may be thought by many to be excessive But I think that, as a rule, larger doses of this antiperiodic are required to prevent the recurrence of a severe neuralgia than of an ordinary "chill" Again, many are in the habit of administering quinine in 5-grain doses, and claim that the effects are just as good or even better But it is necessary to use 5 or 10 grains more, as a rule, when it is given in this way A protracted personal experience with "chills" has given me a dislike to small doses of quinine (gr v every four hours) in intermittent affections Nor do I think that the value of quinine in neuralgia is limited to the strictly intermittent cases I recall one case in which a severe case of non intermittent (though probably malarial) trigeminal neuralgia was effectually routed by two doses of gr xxx, on two successive days, though the patient had been taking gr iv three times a day for fully two weeks

At any rate, it must be admitted, as has been shown, that large doses of quinine, given at one time for the antipyretic effect, have a more marked effect on the temperature than the same quantity distributed over a long time, and I see no reason to doubt that the same holds true when the drug is given solely as an antiperiodic It is possible, too, that malarial pyrexia and malarial neuralgia differ only in this in the first the nervous explosion is general, and takes the form of fever, in the second it is localized in one or more nerves and causes pain One reason that has been advanced against the giving of one or two large doses of quinine is that it is rapidly eliminated In three experiments Thau found that about three-fourths of the amount given was eliminated in *twelve* hours[1] I use the bisulphate invariably It is very much more certain in its effects, much more soluble, and its effects are therefore more quickly produced Its solubility, moreover, renders it especially adaptable for hypodermatic administration When thus used the solution should *always be brought to the boiling point* in the spoon immediately before it is taken into the syringe This, I think, is the most certain way to prevent sore spots and abscesses after subcutaneous injections of any drug

In regard to the extreme susceptibility to morphia, with the tolerance, without any bad or unpleasant effect whatever, of a dose which acted so quickly, I think that the case recorded is very remarkable That the imagination of the patient had nothing to do with the rapid effect was shown by the fact that a subcutaneous injection of warm water, given experimentally on the second day, had no effect whatever

65 Randolph St

---

[1] Binz found that about two thirds only was eliminated in 48 hours but his results have been questioned

Bright's disease We were compelled to tap her twice within two months, but she finally died in a uræmic convulsion Her abdomen was enormously distended before the tapping This was undoubtedly a case of acute parenchymatous disease of the kidney

Another case was that of a lady aged 60 years She had malignant disease of the stomach She also had ascites The fluid, though moderate in amount, was a source of great suffering, and she required large doses of morphine She was under my care from February 5th to April 25th, 1878, the time of her death I tapped her twice She experienced *marked relief from each tapping until the fluid again* accumulated, which did not occur until after the lapse of four weeks

The twelfth case was that of Miss P , aged 43 years She suffered from extreme dyspnœa and great throbbing at the neck, which seemed indicative of aneurism Elaterium and digitalis removed all the swelling of the extremities and abdomen This was from November 1 to December 16, 1879, but on December 31 following she had a recurrence of the dyspnœa, with marked ascites Between this date and March 10, 1880, she was tapped twice, with much relief after each operation On April 3 she died in consequence of the enormous aneurism, which after death proved to be at the arch of the aorta

I will now briefly relate a case which has been of unusual interest to me Mr B , aged 76 years, upon whom I had operated three times during the months of May and June, 1884, before I succeeded in completely curing him of old hæmorrhoids attended with severe prolapsus of the rectum After this the patient had entirely recovered, so that he was able to be out as heretofore during the months of August and September In November following he was run over by a heavy express wagon while in Boston, and was afterwards exposed to severe cold and wet, and was chilled On November 11 he was unable to void urine His legs, genitals and abdomen were enormously swollen, and the patient became stupid, his tongue was dry and brown With great difficulty I succeeded, on that day, in drawing off about a pint of urine, which was of a dark, smoky color On the next day he was much worse, was still stupid and unable to comprehend anything of consequence when spoken to, and I found it necessary to slit up the prepuce about an inch and a half before I could reach the urethra with any kind of a catheter whatever, so great was the swelling that had extended to these parts Only a small quantity of urine, however, was found in the bladder With the assistance of the apothecary, Mr H S Andros, who had frequently assisted me in the case of A V S , I aspirated the abdomen and removed four quarts of fluid The next day I tapped again, and the amount of fluid now removed was nearly a water-pailful After that the patient was able to void his urine, and by the use of elaterium he gradually made a complete recovery, except for a troublesome pruritus, the absence of the tendon reflex and a tendency towards locomotor ataxia The patient is able to be out of doors almost daily, and walks quite well Up to the time
(1880) when I began to treat
almost all authorities refer to tap
inal cavity in ascites to be had
last resort In THE JOURNAL
MEDICAL ASSOCIATION, Vol 1, N
an original article "On Early T
Ascites" This article, by Austin
read at the meeting of the British
tion in Liverpool, on August 2, 18
about three years after I began to
whose case I have given *in extenso*
of this paper Dr Flint, in speak
tages of early tapping in cases of as
port of twelve cases illustrative of th
tapping He refers to a series of fo
an article "On Hydro Peritonæum,"
lished in the *American Journal of M*
in the year 1863 In his article of
states that more writers than heretofo
tapping in cases of ascites "only when
accumulation has occasioned an alar
ence with respiration, and after other m
ment have proved ineffectual" In a
mentions "as exceptional instances" so
curring in Dr Frederick T Roberts's "
of Medicine"

QUININE IN SCIATICA—UNUSUAL SUSCE
TO MORPHIA, WITH TOLERANCE OF THE

BY WM G EGGLESTON, M A , M

OF CHICAGO ILL

The average length of time, I believe, req
a subcutaneous injection of morphia to take
an anodyne is about fifteen minutes, for the
effect a still longer time is required The
ing case is interesting on account of the fac
the drug acted in a remarkably short time, a
at times there was no appreciable interval b
the anodyne and hypnotic effects, and on acco
the favorable action of quinine in a case of sc

On March 13, at 8 P M , I was called to see
H , æt 54, who who was suffering from a s
attack of sciatica on the right side For suffi
reasons I administered morphia, gr $\frac{1}{6}$, *with gr*
of atropia As usual when I administer any
subcutaneously I noticed the time While repla
my syringe in the case the patient threw his a
across his chest, said "All right," and was asle
immediately This was just four minutes after t
injection was made Being somewhat alarmed
such unusual susceptibility, I aroused the patient an
spoke to him *I had no difficulty in awakening him*
and he seemed surprised that I had aroused him H
said that the drug had had a similar effect two o
three years ago when he had taken it, and his wife confirmed his statement Upon this information I determined to set aside my proposed treatment of the case with injections of ether, and to use morphia, with cod-liver oil and phosphorus internally

On the next day, March 14, I administered gr $\frac{1}{6}$ morphia, with gr $\frac{1}{200}$ of atropia, at 9 A M The patient had slept well the night before until about

shown, to the hypertrophy of the muscular fibres between the orifices of the ureters—the intra ureteral bar—as well as, I believe, to that of the muscular fibres so largely entering into the composition of the prostate In this, I submit, will be found the immediate cause of prostatic hypertrophy The change being an example of an hypertrophy, its production by conditions favoring the formation of over growths observed in the body seems to be reasonable Such a view, as applied to the large prostate, is strengthened by certain clinical observations A frequent desire to empty the bladder is constantly met with in what is regarded as the earliest stage of prostatic hypertrophy, and long before the gland has assumed any considerable size, the more frequent the calls are to urinate, the more rapidly does the prostate grow, and all circumstances which tend to increase irritability of the bladder may be said to favor the development of this condition Lastly, the only means which are known to have caused the opposite state—namely, that of atrophy, to be engrafted on the hypertrophied gland—are those which for a considerable time converted a muscular and physiological act into a purely mechanical one, for instance, the case I published[1] some years ago (since repeated with equally satisfactory results), where, by the wearing of a canula inserted through the perineum, the process of micturition was reduced to the mechanical act of turning a tap on the part of the patient Though regarding senile enlargement of the prostate as an hypertrophic change, I was at a loss to explain how it was induced until I met with instances where, from the conformation of the bladder, an irritating condition of residual urine seems to have preceded, and not to have been the consequence of, an enlarged prostate Instances in practice are not uncommon in elderly males, where all the symptoms usually assigned to prostatic enlargement are present, without there being evidence, beyond the presence of some residual urine, that any physical change in the gland has taken place

The frequency with which the floor of the gland is the first to show the hypertrophic change seems to strengthen the inference I have drawn from the development of the inter ureteral bar, and to indicate that both conditions are the direct result of straining and an excess of the expulsive action of the bladder and associated parts Structurally, the inter ureteral bar and the hypertrophied prostate are identical, with the exception that in the latter will be found the follicles which have led to it being regarded as a glandular body It is impossible to examine some of the commoner forms of advanced prostatic hypertrophy without being struck with their resemblance to what I would describe as growing casts of the interior of a frequently contracting bladder

But it may be urged that if repeated expulsive action on the part of the bladder causes enlargement of the prostate to follow, how is it that stone and urethral stricture do not in like manner occasion it as a uniform consequence? To this I would reply that stone and stricture as excitants of expulsion are general or varying in their operations, and do not, as a rule, merely involve a limited area of the bladder wall, consequently the hypertrophy following stricture is universal so far as the viscus is concerned In the same way, the whole bladder is involved when a growing prostate becomes in addition an obstacle to micturition When a stone is fixed to the bladder it is I believe, subjected to precisely similar influences on the part of the bladder wall immediately adjacent to it as those described in connection with the trigone, and may result, as I have seen, in a circumferential development of muscular tissue sufficient in some instances to produce sacculation This is not an uncommon process, and may be studied with advantage in those cases where secondary calculi are developed as a consequence of surface irregularities produced by a large prostate, and which I have referred to elsewhere as fixed or stationary stones [1] Further, it may be urged that such an explanation cannot be held to cover those instances where persons with more or less enlarged prostates do not suffer from them I have investigated cases of this kind generally with the result of finding out that, at some period in their history, considerable urinary irritation was present and persistent That an hypertrophy may prove to be *a precise compensation*, without, on the one hand, falling short, or, on the other, overlapping, I think we have evidence of here as in other parts of the body It has been objected that enlargement of the prostate cannot be regarded as a mere muscular hypertrophy, as it does not occur during those periods of life which are most remarkable for muscular activity and development On the other hand, it is hardly necessary to remark that, though an hypertrophic act in which muscular tissue is principally involved, it is really prompted by alterations in the form or function of a contiguous part which are the products of advancing years

It may not be out of place to observe in connection with analogous processes of hypertrophy, which in general terms have been referred to, that the best marked are those where structural defects are remedied, not in the part itself at fault, but in that which is adjacent In the heart it is not the valve that is reproduced, but the ventricle or auricle which is augmented Nor does the analogy cease here, for as the hypertrophied heart in turn occasions symptoms peculiar to itself, in like manner does the large prostate produce its own derangements In conclusion, it should be remembered that the changes and diseases to which the hypertrophied gland is liable, and about which there is much to be said of great practical value, must not be confounded with the primary lesion it is desired here to refer to —*Lancet*, March 6, 1886

Pyridine in Asthma —Dr Joseph Neff, of Philadelphia, in an article on this subject, gives the following summary of his results with this drug

Nervous pulmonary asthma, 3 No return of attacks in any

Cardiac asthma, 3 All were relieved of attacks One remained under observation three months, and one for two weeks only

---

[1] British Medical Journal Dec 24 1881 and April 8 1882

[1] Annals of Surgery June 1885

A CASE OF STRAMONIUM POISONING, WITH PECULIAR SYMPTOMS

BY C C GRATIOT, M D,

OF SHULLSBURG WISCONSIN

Between the hours of 7 and 8 P M on February 22 I was called in haste to see the child of Street Commissioner Thomas Lee, of Shullsburg, the messenger stating that the child was having convulsions I arrived at the house within a few moments and found the patient, a boy three years of age, sitting in his mother's lap, his arms and hands outstretched as though to grasp some object He would open and shut his fingers with deliberation, as though the object he was trying to grasp required some caution and skill to take hold of After two or three minutes of such manœuvreing he would make a sudden jump as though about to seize the object, and would then cry distressfully

While his hands were thus employed his eyes were fixed, looking straight ahead as though watching something The pupils were widely dilated, cheeks flushed, mouth dry, pulse fast and full, heart's action good but fast, and respirations increased

There was also another hallucination He would act as though something was approaching him from the opposite side of the room, and would point towards it his eyes and facial expression would convey the idea that the object was after him, and coming nearer and nearer, until he became so agitated that he seemed on the point of having a convulsion

These hallucinations would alternate, and the only thing that diverted his attention for an instant would be to offer him a cup of water, which he took with a seeming relish Turning down the light until the room was almost dark made no difference in his actions

I was told by the parents that he had always been healthy, that he had been playing out of doors all day, ate a hearty supper, and that nothing wrong was noticed until a few moments before they sent for me, when he commenced to act in the manner described I inquired if there was any medicine in the place that he could have taken, but could find nothing that threw any light on the case While watching him and making these inquiries I noticed that the symptoms were getting worse

It occurred to me that the symptoms were those of belladonna poisoning I administered an emetic of ipecac, gr x, and a large quantity of water He vomited in a short time, but there was nothing unusual in the ejected matters I then gave small doses of morphia and bromide of potassium, and rectal injections to move the bowels, but without effect After an hour he became more quiet, and fell asleep After an hour's sleep he seemed somewhat better The pupils were still widely dilated, but the hallucinations were not so vivid

On telling a professional friend of the curious actions of the patient he remarked that the symptoms were similar to those which he once saw in the cases of two children who had eaten *stramonium*, and it immediately occurred to me that such was the case with my patient He vomited several times during the night, and would wake up and go through his performances, but not so badly as during the evening

On the morning of February 23 he was much better The crazy actions had disappeared, but the pupils were still considerably dilated, cheeks flushed, and he was very thirsty He ate a good breakfast, and before night was apparently as well as ever In the matters vomited during the night were a number of stramonium seed I found on inquiry that his father had kept a patch of stramonium plants in the corner of his yard, which he used in making ointment for horses The boy had cut one of the dry stalks, which was hanging with pods full of seed, and had eaten a quantity of the seed After finding the cause of the child's sickness the mother remembered his bringing the stalk on the porch, and saying that he had cut a tree

The case is of still further interest as showing that stramonium poisoning is quite possible in winter if there be any of the dead plants about with pods full of seed

MEDICAL PROGRESS

Causation and Nature of Hypertrophy of the Prostate —Mr Reginald Harrison gives an interesting summary of his views on this subject as follows In a paper recently published[1] on some "Changes in Form of the Prostate and Floor of the Bladder," I have shown that the inter ureteral bar of muscular fibres so frequently met with in cases of enlarged prostate is to be regarded as the outcome of efforts, by the development of extraordinary agents of micturition, to expel urine from a part where it is apt to lodge and cause inconvenience In connection with these investigations, I have met with instances where an unusually depressed state of the floor of the bladder, or trigone, appeared to me to have existed previously to an enlarged prostate, in fact, that a condition of residual urine preceded, and was not the sequence, of enlargement of the gland The trigone, or floor of the bladder, in addition to being a highly sensitive part, is peculiar in that it contains but few muscular fibres in its composition, muscle in abundance may be found as low as a line corresponding with the openings of the ureters, and marking the superior boundary of the trigone, and below in the prostate, between these two points the power of muscular contraction can hardly be said to exist Assuming that, from any cause, such as long retention of urine, habit, position of the body, or the weakness connected with advancing years, the trigone, or non contractile part of the bladder, becomes permanently depressed or altered in form, so that the person finds himself unable to get rid of the last half-ounce or so of urine, the effect will be frequently repeatedly expulsive efforts in all the muscles immediately adjacent to a part which, by reason of its connections and structure, has no power of exercising contractility This will eventually lead, as I have shown, to the hypertrophy of the muscular fibres between the orifices of the ureters—the intra ureteral bar—as well as, I believe, to that of the muscular fibres so largely entering into the composition of the prostate In this, I submit, will be found the immediate cause of prostatic hypertrophy The change being an example of an hypertrophy, its production by conditions favoring the formation of over growths observed in the body seems to be reasonable Such a view, as applied to the large prostate, is strengthened by certain clinical observations A frequent desire to empty the bladder is constantly met with in what is regarded as the earliest stage of prostatic hypertrophy, and long before the gland has assumed any considerable size, the more frequent the calls are to urinate, the more rapidly does the prostate grow, and all circumstances which tend to increase irritability of the bladder may be said to favor the development of this condition Lastly, the only means which are known to have caused the opposite state—namely, that of atrophy, to be engrafted on the hypertrophied gland—are those which for a considerable time converted a muscular and physiological act into a purely mechanical one, for instance, the case I published[1] some years ago (since repeated with equally satisfactory results), where, by the wearing of a canula inserted through the perineum, the process of micturition was reduced to the mechanical act of turning a tap on the part of the patient Though regarding senile enlargement of the prostate as an hypertrophic change, I was at a loss to explain how it was induced until I met with instances where, from the conformation of the bladder, an irritating condition of residual urine seems to have preceded, and not to have been the consequence of, an enlarged prostate Instances in practice are not uncommon in elderly males, where all the symptoms usually assigned to prostatic enlargement are present, without there being evidence, beyond the presence of some residual urine, that any physical change in the gland has taken place

---

[1] Liverpool Medico Chirurgical Journal July 1885

The frequency with which the floor of the gland is the first to show the hypertrophic change seems to strengthen the inference I have drawn from the development of the inter ureteral bar, and to indicate that both conditions are the direct result of straining and an excess of the expulsive action of the bladder and associated parts Structurally, the inter ureteral bar and the hypertrophied prostate are identical, with the exception that in the latter will be found the follicles which have led to it being regarded as a glandular body It is impossible to examine some of the commoner forms of advanced prostatic hypertrophy without being struck with their resemblance to what I would describe as growing casts of the interior of a frequently contracting bladder

But it may be urged that if repeated expulsive action on the part of the bladder causes enlargement of the prostate to follow, how is it that stone and urethral stricture do not in like manner occasion it as a uniform consequence? To this I would reply that stone and stricture as excitants of expulsion are general or varying in their operations, and do not, as a rule, merely involve a limited area of the bladder wall, consequently the hypertrophy following stricture is universal so far as the viscus is concerned In the same way, the whole bladder is involved when a growing prostate becomes in addition an obstacle to micturition When a stone is fixed to the bladder it is I believe, subjected to precisely similar influences on the part of the bladder wall immediately adjacent to it as those described in connection with the trigone, and may result, as I have seen, in a circumferential development of muscular tissue sufficient in some instances to produce sacculation This is not an uncommon process, and may be studied with advantage in those cases where secondary calculi are developed as a consequence of surface irregularities produced by a large prostate, and which I have referred to elsewhere as fixed or stationary stones[1] Further, it may be urged that such an explanation cannot be held to cover those instances where persons with more or less enlarged prostates do not suffer from them I have investigated cases of this kind generally with the result of finding out that, at some period in their history, considerable urinary irritation was present and persistent That an hypertrophy may prove to be *a precise compensation*, without, on the one hand, falling short, or, on the other, overlapping, I think we have evidence of here as in other parts of the body It has been objected that enlargement of the prostate cannot be regarded as a mere muscular hypertrophy, as it does not occur during those periods of life which are most remarkable for muscular activity and development On the other hand, it is hardly necessary to remark that, though an hypertrophic act in which muscular tissue is principally involved, it is really prompted by alterations in the form or function of a contiguous part which are the products of advancing years

It may not be out of place to observe in connection with analogous processes of hypertrophy, which in general terms have been referred to, that the best marked are those where structural defects are remedied, not in the part itself at fault, but in that which is adjacent In the heart it is not the valve that is reproduced, but the ventricle or auricle which is augmented Nor does the analogy cease here, for as the hypertrophied heart in turn occasions symptoms peculiar to itself, in like manner does the large prostate produce its own derangements In conclusion, it should be remembered that the changes and diseases to which the hypertrophied gland is liable, and about which there is much to be said of great practical value, must not be confounded with the primary lesion it is desired here to refer to —*Lancet*, March 6, 1886

PYRIDINE IN ASTHMA —DR JOSEPH NEFF, of Philadelphia, in an article on this subject, gives the following summary of his results with this drug

Nervous pulmonary asthma, 3 No return of attacks in any

Cardiac asthma, 3 All were relieved of attacks One remained under observation three months, and one for two weeks only

---

[1] British Medical Journal Dec 24 1881 and April 8 1882

[1] Annals of Surgery June 1885

Bronchial asthma, 3 In one there was no return during ten weeks' stay in the hospital The two others were relieved of their attacks and insisted upon their discharge, being under treatment less than three weeks

Asthma in advanced phthisis, 2 In one there was but slight relief during the paroxysm, in the other there was absolutely no benefit

Asthma as a complication of gout, 1 No return in a month Albuminuria from interstitial nephritis was present

Of the fourteen cases reported by Sée, four were in females, ten in males, from 30 to 68 years of age Nine were what he terms "pure asthma," all of which were more or less relieved, and five cases of cardiac asthma

In one case of twelve years' duration pyridine caused nausea and vertigo after eight days of treatment, which necessitated its discontinuance, although great relief was obtained Nausea I have not seen, vertigo but once In one or two cases where the expectoration had been purulent it lost that character after the inhalation All unpleasant symptoms seem to be confined to cases with long standing emphysema, or valvular or degenerative heart disease, with small, irregular pulse In young, robust people with "simple" pulmonary asthma there seems to be drowsiness alone

Since these observations were made I have noted, in a more recent report by Lublinski, one case of marked tremor of the limbs with nausea, and another with vomiting, dizziness, and severe headache In all of these, however, the length of time of each inhalation was prolonged from one to one and one-half hour The beneficial results obtained from this remedy seem to be from its action on the sympathetic and the medulla Any depressing effects on the heart would seem due rather to the interference with the pulmonary functions, death being caused, in the lower animals at least, by paralysis of the respiratory centers

Pyridine is not to be classed as a curative agent Most likely its greatest value will be seen in cases of simple or nervous pulmonary asthma, when the iodine preparations cannot be borne, or nitro glycerine and sodium nitrite are contra indicated Although in the bronchial or catarrhal forms of the disease the relief of the paroxysms has been marked in ninety per cent of the cases treated, of the remaining number nearly all had emphysema of long standing In asthma occurring in advanced phthisis the drug should be given with care on account of the small amount of lung tissue left unaffected, especially where there is a great degree of consolidation with fibroid induration, when, perchance, the spasm may be relieved, but few air vesicles remain in condition to respond Here at least morphine will hardly be superseded

I have used pyridine in several forms of dyspnœa occurring in different diseases without much benefit In phthisis the recurring dyspnœa and orthopnœa are relieved during the period of inhalation only, returning in a few moments, and at times with increased violence

With so little experience, this drug must be administered with a certain degree of caution until its action is thoroughly understood, severe or persistent headache, nausea, vomiting, and vertigo acting as danger signals warning us to proceed with care — *New York Medical Journal,* March 13, 1886

Diagnosis of Cancer of the Uterus —Dr H Handford reports the following interesting case

M I , aged 24, was admitted into the Nottingham General Hospital under my care on April 7, 1885 Her family history was good Menstruation commenced at the age of 12, the flow lasted four days, and recurred every month She was married at 15, and had had two children, both of whom died before they were 6 month old Since then, she had had two miscarriages at about the third month, the last five years ago, since which time she had been regular She first noticed a fœtid vaginal discharge about six weeks before admission, and a little later saw Dr Truman at the Nottingham General Dispensary, who diagnosed cancer of the womb She never had any rash on the skin or falling out of the hair, and had no syphilitic eruption On vaginal examination, the cervix was found indurated, enlarged, ragged, and excavated so as to admit the index finger for about three fourths of an inch The uterus was somewhat restricted in movement, but the fundus was not enlarged The patient was also seen by Mr Wright, the senior surgeon, who confirmed the diagnosis of cancer The examination caused a little hæmorrhage I removed a small fragment of the growth, which, upon microscopic examination, was found to consist chiefly of large round cells, with a single large nucleus, but no flat or irregularly shaped cells The tissue was pervaded by the mycelium of a filamentous fungus (one of the hyphomycetes)

The patient left the hospital, and died eighteen weeks later, six month from the first symptoms No *post mortem* examination was made

The diagnosis was between cancer, sarcoma, and syphilis The ravages of the latter may be very extensive, but are stated to be limited to primary ulcers taking on a phagedænic character There was no evidence of syphilis in this case Sarcoma is said almost invariably to take its origin from the lining membrane of the body of the uterus, and not to commence in the cervix The microscopic examination of the portion removed did not suffice to determine the exact nature of the growth The fragment was necessarily small, was infiltrated with inflammatory materials, and consisted in large part of vascular granulations These latter cover the surface of ulcerating new growths, are an important source of the hæmorrhage, and, in many cases, differ very little in structure from healthy granulation tissue, though, in others, "cell-nests," or other characteristic structures, may be found For these reasons, I have come to the conclusion, after many trials, that negative results of the microscopic examination of scrapings or small fragments by no means disprove the malignant nature of the growth —*British Medical Journal,* March 20, 1886

The Functions of the Corpus Striatum — Herrn Baginsky and Curt Lehmann brought before the Physiological Society of Berlin, at the meeting on November 13, 1885, the results of their researches on the functions of the corpus striatum. They remark that as these organs lie deeply embedded in the brain they cannot be reached without considerable damage being inflicted on other parts, and they took pains to adopt a method which should minimise this injury. They found the plan which gave the most exact and uniform results was to plunge a fine glass tube into the corpus striatum and place the other extremity of the tube in connection with an exhausting syringe, by which the substance of the corpus striatum could be sucked out. The experiments were made on rabbits. If that part which projects into the ventricle were removed, the phenomena presented were that the fore and hind limbs of the opposite side were extended if the animal were previously in the sitting position. The extremities, and especially the anterior limbs, could easily be placed in anomalous positions, in which they remained till a stronger stimulus was applied. The movement of the extremities offered a certain resistance to the hand of the operator, which was greater than that of the opposite side. No motor defect was observed when the animal ran or made other voluntary movements. The temperature of the body remained normal, or only rose slightly and at a late period. The animal showed great excitability and much tendency to fear upon various sense impressions, making energetic efforts to escape by jumping from side to side. When the brain substance was removed down to the corpus striatum, without injury to that body, the same symptoms were observed, except that the rise of temperature was more common and greater. The authors of the memoir therefore arrive at the conclusion that the functions of the corpora striata do not differ materially from those of the superjacent brain substance.—*Lancet*, March 13, 1886.

METHOD OF TREATING FRACTURED CLAVICLE.—At the meeting of the Manchester Medical Society, on February 17, MR. C. E. RICHMOND demonstrated an easy method of treating this injury. The position adopted was similar to the French one, the palm of the hand of the injured side being laid flat on the chest. The best position for adapting the ends of the fragments was first ascertained by abducting the elbow from or approximating it to the sternum. A piece of broad strapping was passed round both arm and body, to fix it in the required position. A piece of calico, twelve inches broad (more in a big adult), and in length sufficient to go twice round the body, was torn longitudinally, so as to make a four tailed bandage, leaving about the middle eighteen inches untorn. This centre part was then grooved round the elbow, and the two lengths of the band (a), that lay next the body, were taken one up in front of the chest, over the flat hand, and the other up behind. These were then knotted together behind the sound shoulder, the other ends being meanwhile held out of the way. The other two lengths (b) were taken round the arm and body in front and behind, and also knotted behind and below the sound shoulder. The (a) ends were then brought down, one in front and one behind, and knotted betwixt the fixed elbow and the body, and then cut off short. The (b) ends were then again brought round the body over everything, and finally knotted in the hollow above the fixed elbow. Wadding was then inserted under the knots to prevent them from galling, and the hand against the chest was secured to the length of bandage, passing over it by means of a strip of calico passed round both. The advantages claimed were these: 1. There was no necessity for special apparatus; 2. The arm was fixed in the most favorable position; 3. The fixing was permanent. The method had been used in numerous cases with the best results.—*British Medical Journal*, March 13, 1886.

UNSTRIATED MUSCLE IN THE KIDNEYS.—The presence of a few scattered smooth muscular fibres in the kidneys has been noticed by several observers, and especially by Henle and Eberth, but DR. JARDET, of Vichy, has, in a short memoir contributed to the *Archives de Physiologie* of February 15, shown that there is a regular system of such fibres. Most of the text books state that a layer of smooth muscular fibres is present in the pelvis and calyces, the origin of which is referred to the double muscular layer of the walls of the ureter. Henle describes a special muscular annulus, composed of longitudinal and circular fibres around each papilla, lying just beneath the membrana propria. The longitudinal layer ceases at the plane of the floor of the pelvis; the circular layer may be traced some distance into the renal substance. The function of these fibres is to drive the urine forwards from the papilla into the pelvis. Eberth found, in man, a plexus of unstriated muscular fibres with large meshes on the surface of the kidney. Some of these fibres dip into the cortical substance of the kidney. The system of fibres described by Dr. Jardet were first noticed by him in pathological specimens, but were afterwards found to be present in the normal kidney. The situation, when they came clearly into view, was in transverse and verticle sections of the pyramids of Malpighi. They occupied the perivascular conjunctival sheath of the vessels, and never extended far amongst the renal tubuli. The fibres are grouped into small fasciculi, which spring from the pelvis and run parallel to the larger arteries and veins, but do not constitute a complete sheath to any vessel. They become hypertrophied in lithiasis, in hydronephrosis, and in all chronic inflammations of the kidney.—*Lancet*, March 13, 1886.

STRYCHNINE IN POST PARTUM HÆMORRHAGE.—In a note on this subject MR. F. H. V. GROSHOLZ says: Though I have not made any trial of a course of strychnine for pregnant women, to prevent the occurrence of hæmorrhage in labor, I have for the past ten years been constantly in the habit of administering it to arrest *post partum* hæmorrhage. My favorite combination to produce regular uterine contraction in these cases is a mixture containing fifteen minims of tincture of nux vomica, fifteen minims of tincture of opium, and half a drachm of ammoniated tincture of ergot. I have almost invariably had most satisfactory results with this dose. Nux vomica, through its alkaloid strychnine, has the direct and almost immediate effect of producing muscular contraction—especially strong in paralyzed parts—and also of retarding the circulation; nor is it improbable that the exaltation of the nervous system produced by its administration renders the action of the ergot more prompt and effectual. The object I had in view in adding the opium was mainly to prevent irregular or spasmodic contraction of the uterus, and also to allay the excitement frequently present in these cases. I have found the preparation of ergot here mentioned particularly reliable, and its stimulant effect is of decided advantage. In abortions and miscarriages, I have also had satisfactory results from the administration of this mixture, given frequently and in smaller doses. In future cases of unknown hæmorrhage tendency, I intend to try the effect of a course of strychnine, and expect that benefit will be derived from this anticipatory treatment.—*British Medical Journal*, March 13, 1886.

BELLADONNA INHALATION IN ACUTE BRONCHITIS.—MR. N. E. DAVIES says in regard to this subject: In acute bronchitis, I believe the dyspnœa is caused more by the contraction of the muscular tissue of the air cells due to the irritation caused by the bronchial inflammation, than by the viscid mucus secreted; and, acting on this belief in a case I had occasion to treat a few days ago, where the dyspnœa seemed likely to terminate life, I gave a grain of extract of belladonna in half an ounce of water, by means of a Dr. Seigel's inhaler. After the patient had inhaled this solution for a few minutes, the breathing became quiet and easy, and before the half ounce was exhausted, the patient was asleep. By repeating this remedy every few hours, with a stimulating system of treatment by the mouth, the patient, an old lady aged 75, soon passed the dangerous stage, and is now recovering.

I have often used this method of treatment in asthma with magical effect, and can strongly recommend its trial in the early state of acute bronchitis, as I have found it marvellously successful. It has the advantage of the ordinary bronchitis kettle, that it moistens the air of the sick-room, and administers a powerful remedy at the same time.—*British Medical Journal*, March 20, 1886.

EXPERIMENTAL AORTIC REGURGITATION.—By lacerating the aortic valves by the aid of instruments passed into the aorta through the carotid artery, M. FRANÇOIS FRANCK has been able to study the immediate and remote effects of this experimental form of aortic regurgitation. In some cases death supervened rapidly, especially when the heart was diseased previously. If the animal survived, the arterial tension, at first lowered, mounts again, and the heart becomes hypertrophied and its vascular activity is increased. According to M. Franck the excessive work of the heart is not to be solely attributed to the aortic reflex, but also to an irritation of the sigmoid region, on the ground that slight lesions or a superficial irritation of this region give rise to a similar hypertrophy. He also explains the danger of syncope of cases of aortic incompetence by the excessive and prolonged distension of the cardiac cavities, as well as by the depression of the arterial tension of the brain.—*Lancet*, March 6, 1886.

THE DIGESTION OF MILK.—DR. M. REICHMANN draws the following conclusions from a number of elaborate experiments as to the digestibility of milk in the human stomach (*Deutsche Med. Zeitung*, No. 82, 1885):

1. Boiled milk leaves the healthy stomach more rapidly than an equal quantity of unboiled milk.
2. The digestion of boiled milk is more rapidly accomplished than that of unboiled milk.
3. The coagulation of unboiled milk in the stomach is complete in five minutes.
4. The coagulation is not caused by the acid of the gastric juice, but by the influence of a special ferment (milk curdling ferment).
5. The acidity of the gastric juice is at first due almost solely to lactic acid, and, later in the process of digestion, to the presence of hydrochloric acid.
6. Hydrochloric acid first appears in perceptible amount forty five minutes after the ingestion of half a pint of milk.
7. For the first hour and a quarter after the ingestion of milk the acidity gradually increases, and then decreases, until the milk has entirely left the stomach.
8. The curds of casein in digestion of boiled milk are much softer than in the case of uncooked milk.—*Therapeutic Gazette*, March 15, 1886.

THE URINE IN PUERPERAL ECLAMPSIA.—M. DOLERIS has found that some specimens of the urine of patients with puerperal eclampsia give, on drying, crystals whose composition is at present undetermined, but which are slightly soluble in alcohol and soluble in acidulated water, and a somewhat concentrated solution of which injected into animals killed a rat and three sparrows, while comparative experiments made with a portion of solution containing no crystals produced no effect. M. Doleris found a normal amount of urea in the blood of two patients dead of the disease, but an increased amount in that of two others who were cured. In one case only were soluble and toxic ptomaines met with. He believes that puerperal eclampsia is of an infectious nature, for it is not only the kidney which is affected but other organs, the liver in particular presenting characters more or less allied to those noted in acute yellow atrophy.—*Lancet*, March 13, 1886.

BORACIC ACID IN DIABETES MELLITUS.—MR. F. A. MONCKTON reports in the *Australasian Gazette* (October, 1885) a case of a boy, aged 14, suffering from diabetes mellitus, with all the symptoms in an aggravated form, who was apparently cured by the use of boracic acid in 7 grain doses three times daily. At first there were no stringent dietary regulations, and even in the later part of the treatment only sugar, potatoes, and oatmeal were forbidden. Bread was eaten at the meals in the ordinary way. He gradually gained in weight, his health improved, and the sugar disappeared from the urine.—*Therapeutic Gazette*, January 15, 1886.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE $5.00
SINGLE COPIES . . . . 10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, APRIL 10, 1886.

DIAPHRAGMATIC PLEURISY.

In the *American Journal of the Medical Sciences*, for April, 1886, DR. FRANK DONALDSON, JR., of Baltimore, gives a most interesting study of this rare affection. As is often the case when we come to look up the literature of some medical subject, we find that this affection was very accurately described by Galen, at least in so far as the peculiar character of the respiration and the retraction of the hypochondriac region are concerned, though he supposed that the seat of the affection was in the muscular structure and not in the serous covering. The disease was mentioned by several writers in the seventeenth and eighteenth centuries, but in an obscure manner, and it remained for Andral to publish, in 1823, the first definite observations of the affection, under its proper name diaphragmatic pleurisy. His paper was published in the *Archives de Medecine*, and in the following year, in his "Clinique Médicale," he gives a record of five cases. Thirty years after the appearance of Andral's paper Guéneau de Mussy published an elaborate monograph on the subject, in the same journal in which Andral's first paper had appeared.

Dr. Donaldson's case, on which his paper is based, was that of a man of about 40 years of age. He had been sick for nine weeks, the illness having begun with a chill "followed by an intense pain referred to the lower intercostal region, more particularly on the right side, with great and increasing difficulty of respiration. He had been, almost from the first, unable to lie down, sitting always with the body bent forward, and his hands pressed to the side to prevent any extra motion." There was an incessant dry cough, with dyspnœa and anxiety of countenance. The abdomen was retracted, the diaphragm almost immobile, and the respiration almost entirely costal. There was some dulness around the lower part of the chest, especially posteriorly on the right side. Pleural friction sounds were heard only on the left side. On the right side the inflammation had extended to the lung structure and set up a localized pneumonia. Anteriorly and posteriorly were points painful on pressure. The diagnosis was diaphragmatic pleurisy of tubercular origin, with slight effusion on the right side. The patient rapidly grew worse, the pneumonia was not resolved, and the lung began to break down. The patient died, but the record does not state at what time after the commencement of the disease.

Besides the serious and more rare forms of diaphragmatic pleurisy, there is a form called acute benign, first written of by Bucquoy, in his "Leçons Cliniques" in 1873. It always tends to recovery, and seems to be a distinct form of diaphragmatic pleurisy. Hermil, Bouchut, Monod, Robert and Fiessinger agree with Bucquoy, and report respectively (except Hermil) 3, 1, 1, and 9 cases, all ending in recovery. Its onset, with chill, pain in the side, and fever, is similar to ordinary pleurisy, but the painful spots and radiating pains, with tender and retracted abdomen, show that the diaphragmatic pleura is affected. It is unilateral until the third day, and then extends to the opposite side, though the invasion of the second side is not accompanied by great pain, and all the symptoms are less severe than when the first side is affected. It is a rather singular fact that the pleurisy disappears first from the second side, and the extension of the inflammation seems to lessen the symptoms. The effusion rises to a higher level on the second side, though the symptoms are here less marked. On the first side there is usually some retraction of the base of the lung on account of the fluid between it and the diaphragm. On account of the retractility of the lung, and the drawing up of the fluid with it, there may be signs of extensive pleuritic effusion, and an erroneous diagnosis is possible. This effusion usually disappears without surgical interference, and the cases result in cure within two or four weeks.

Andral, de Mussy and others think that diaphragmatic pleurisy is not so uncommon as is generally supposed. The number of cases on record is somewhat less than one hundred, but the apparent rarity may be due to errors in diagnosis and failure to record cases when seen. Though the onset is variable, the affection is usually ushered in by a chill of greater or less violence, followed by fever and sweating When secondary pleurisy occurs in the course of acute or chronic disease it is marked by an increase in the fever, or a second chill, but the pain and other characteristic symptoms attract attention chiefly "Intense pain in the side and constriction of the lower part of the chest, soon follow the chill The pains of diaphragmatic pleurisy are characteristic, and are to be referred to the terminal filaments of the phrenic nerve," what Hermil calls *douleurs par propagation* Many of the peculiar symptoms found in connection with the affection are explained by a reference to the anatomy and distribution of the phrenic nerve The pains extend over a large surface—"over the whole hypochondriac region and over both flanks to the inferior dorsal region behind, following the line of the costal insertions of the diaphragm, and often along the border of the sternum and under the lower insertion of the sterno cleido-mastoid muscle, and over the shoulder and neck" They may be spontaneous, but are always provoked by pressure, increased respiratory movements, hiccough, vomiting, etc The favorite seats of pain, according to de Mussy, are over the epigastrium, at the points of insertion of the diaphragm, in the eleventh interspace behind, near the spine, along the course of the phrenic nerve, and at the *bouton diaphragmatique*, a point one or two fingers'-breadth from the middle line, on a level with the tenth rib, or at the intersection of a line drawn from the osseous part of the tenth rib and one drawn along the border of the sternum The pain is always very great at this point, and is due, according to him, to the greater play of the rib, and the consequent friction against the inflamed nerve The pain along the course of the phrenic nerve is rarely spontaneous, but is always evoked by pressure, especially where the nerve runs under the sterno mastoid muscle

The *douleurs par propagation* run along the sides as far as the iliac fossæ in some cases, though they are usually more intense in upper part of the body, and are sometimes felt with great intensity in the muscles having nervous connections with the cervical and brachial plexuses As regards the pain felt over the liver and spleen it is difficult to say whether it is due to pressure of those organs on the inflamed muscle, as Dr Donaldson thinks, or to a local peritonitis from extension of inflammation Pain is more often present in the hypochondriac region than in any other locality in this affection The attitude of a person suffering with this disease is very characteristic, and is well shown in the case recorded The symptoms which are most distinctive and prominent are the frequency and shallowness of the respirations, respiration is entirely costal, and confined to the upper part of the chest, and in a case reported by de Mussy it was unilateral The number of respirations is enormously increased, Hayden and Graves reporting cases in which the number was 80 or 100 When effusion takes place in diaphragmatic pleurisy there is, according to Chaffaud and de Mussy, a lowering of the twelfth rib, its anterior end being lower than that of its fellow on the opposite side Hiccough, nausea and vomiting are often present, as might be supposed Delirium, which at one time was supposed to be diagnostic, is thought by de Mussy to be more frequent than in costo pulmonary pleurisy The affection is to be diagnosticated from rheumatism of the diaphragm, inflammation of the muscular structure and neuralgia of the diaphragm, costo parietal pleurisy, pericarditis, hepatitis, and circumscribed peritonitis, but it seems that proper care should prevent any error in diagnosis unless the disease be complicated with some one of these affections

CHRONIC TEA POISONING

At various times during the past few years medical men, chiefly in England, have called attention to the deleterious effects of tea upon those who partake too freely of this beverage But though some attention has been called to the subject very little has been written that is at all definite, in the way of substantiating assertions by clinical proof The paper on "Chronic Tea-Poisoning" read by Dr William N Bullard before the Suffolk District Medical Society on March 10, in which he gives a record of five cases may therefore be regarded as a valuable contribution to a comparatively obscure subject

In his paper Dr Bullard deals only with cases of subacute and chronic tea poisoning, leaving out of account all acute cases and those of professional tea-tasters These have already been fully written of by Morton, in a paper on tea tasters, based on five cases, in which he gives the symptoms of "continued and immoderate use of tea" as headache, ringing in the ears, tremulousness, nervousness, exhaustion of mind and body, with disinclination to mental and physical exertion, increased and irregular action of the heart, and dyspepsia It will be seen that these symptoms correspond very closely to those of chronic tea poisoning Dr Bullard's statistics are based on 163 cases of tea-drinkers, and he also examined, for the purpose of differentation, 158 cases in which symptoms of tea-poisoning occurred, but in which he was not inclined to attribute the symptoms to the abuse of tea. In analyzing his cases he follows the order of symptoms given by Morton, and considers the frequency of the different symptoms, in order to see what combination of these may be considered as characteristic of tea-poisoning Headache occurred in 30 per cent of the cases, hemicrania in 11 per cent In the cases in which the headache was bilateral it was situated generally in the forehead and temples "Ringing in the ears" was not frequent It was noted in but three cases, in two of which it was due to disease of the ear, while in the third case it accompanied a congestive headache supposed to have been due to exposure to a hot sun

We may very properly classify four of the symptoms under the general head of nervous phenomena Tremulous, according to Dr Bullard, is not uncommon, and it probably occurred in many cases in which its existence was not noticed or specified In other cases it was probably given as "nervousness" Tremor was noted in six cases, "but in only one of these does is seem fairly attributable to the tea," and he concludes that tremor is not an ordinary symptom of chronic tea poisoning "Nervousness" was prominently noticeable in 16 per cent of the cases, its total absence in one case "Slight degrees of nervousness probably exist in nearly all these patients, but we cannot therefore conclude that it is the direct result of tea" In many cases it is doubtless due to the digestive troubles As regards the symptom "exhaustion of mind and body, with disinclination to physical exertion," Dr Bullard says that it "is of too indefinite a character to be susceptible of accurate determination in the class of cases with which we have to deal Moreover, its liability to occur from other causes renders it impossible to determine how far it is due to tea" We have noticed this symptom prominently in tea tasters, however In the cases examined general weakness was mentioned in 8 per cent Increased and irregular action of the heart does not appear to be a necessary symptom of chronic tea poisoning Palpitation, which was present in almost all severe cases, occurred in 49 per cent, and irregularity of the heart in six additional cases

The symptom dyspepsia in those who use tea immoderately seems to have been more frequently noticed than any other by foreign writers, and Dr Bullard says that "the occurrence of gastric or intestinal symptoms with chronic tea-poisoning is almost universal," but that in many cases these do not assume a very prominent form He has noted those cases only in which there was "a distinct sense of oppression or fulness in the epigastrium after eating" Of these there were seventy-five cases, or 46 per cent Pain in the epigastrium occurred in 9 per cent Vomiting occurred in 17 per cent (twenty-eight cases), and nausea in 20 per cent In thirteen cases the vomiting was combined with nausea, in twenty two cases it was noted under dyspepsia. Nausea was reported alone in five cases, in three of which it occurred with headaches, in one there was trigeminal neuralgia, and in one it was probably due to the use of tobacco Pain in the left side, or in the cardiac region, which is a frequent symptom in women, and probably due generally to the gastric condition, occurred in 21 per cent of the cases It is surprising to note that serious intestinal disturbances, and especially constipation, do not, according to Dr Bullard's account, occur very frequently in the cases under consideration Loss of appetite occurs in a greater percentage of cases (61 per cent) than any other symptom Dyspnœa was present in twenty-three cases, "but seems usually to be secondary to anæmia or cardiac weakness" In two cases it was due to pulmonary disease, and in nineteen was accompanied by palpitation It is somewhat surprising that anæmia was present in only 18 per cent of the cases We may therefore put the comparative frequency of symptoms in chronic tea-poisoning as follows anorexia 61 per cent, dyspepsia and pain in the epigastrium 52, palpitation 49, constipation 47, nervous symptoms 42, headache 30, pain in left side 21, nausea 20, vomiting 17 "All these symptoms are common in many other diseases, but it is the special combination which exists here, and above all the predominance of the nervous group, which enables us to form our diagnosis It is evident that there exists many cases of this affection in which no diagnosis could be arrived at from the symptoms alone without the history, but I firmly believe that in the majority of the cases, a presumption in favor of this affection is justifiable from the sole evidence of the symptoms"

The first evidence of chronic tea-poisoning is a gradually increasing difficulty of digestion, followed by general restlessness and excitability of the nervous system, by disinclination for food and headaches Constipation is present in almost one half the cases "Palpitation, which has previously been slight, now becomes distressing, and is not infrequently accompanied by dyspnœa" Up to this point the patient may declare that her health is good, but in the more severe cases the symptoms now become more pronounced, and usually point to digestive troubles or hysteria, or both "Whenever a marked gastralgia exists without evidence of organic disease, wherever we find frequent vomiting apparently unaffected by food and unaccompanied by gastric catarrh, in other words, wherever we find evidence of a true gastro-neurosis, or if increased excitability of the gastric nerves greater than could ordinarily be accounted for by by the condition of the stomach, whether dyspepsia be present or not, if the agency of alcohol can be eliminated, we should always suspect tea-poisoning. We have at present no evidence in regard to the condition of the blood vessels in this affection and it is reasonable to suppose that no great variation from the normal will be found, inasmuch as the trouble is so chronic and in many cases so slight. Whether or not any increase exists in the excitability of the vaso-motor nerves under these conditions would be an interesting subject for investigation.

It is of special importance to remark that the affections of the nervous system due to chronic tea poisoning are, so far as my observation show, *always functional*. Where organic symptoms exist they are not connected with tea.

The average amount of tea taken by those who showed symptoms of poisoning was 4.8 cups *per diem*. This, however, cannot be taken as a standard for making a diagnosis in any given case. The age and physical condition of the patient are very important considerations. Youth, weakness of any kind, and anæmia, naturally render the system more susceptible to any toxic influence, "and hence we find that even those adults who have for years been accustomed to take a moderate amount of tea without evil effects, if for any reason they become anæmic, if their strength be exhausted by excessive work or in other ways, immediately begin to show toxic symptoms, although the amount of tea ingested has not increased. This is well shown in cases of chlorosis and is very common among factory operatives and seamstresses. We desire to lay special stress on this fact, which is one cause of the non-recognition of the toxic agency of tea by the patient. That deprivation of fresh air and want of sufficient food should cause the same result is only to be expected, not only because in themselves they tend directly to produce weakness and anæmia, but also because the toxic products are *not so readily eliminated*. It is for the same reason that more tea can be drunk without evil effect by persons when working or taking exercise than could be taken by the same person when idle or at rest."

PROPOSED NATIONAL BUREAU OF PUBLIC HEALTH.

Under this head in another department of THE JOURNAL will be found a copy of the Bill recently introduced into the House of Representatives by Dr. Robert T. Davis, member from Massachusetts, "to prevent the introduction of contagious and infectious diseases, and to establish a Bureau of Public Health," which was referred to the Committee on Commerce, subsequently reported by the Committee with some amendments, which are included in the present copy, and it was referred to the Committee of the whole House on the State of the Union.

It will be seen that the Bill simply provides for the establishment in the Department of the Interior of a Bureau of Public Health, under the management of a Commissioner of Health with an annual salary of $4,500, with all the necessary powers and duties to secure the establishment of an efficient and permanent National Bureau of Public Health, to take the place of the old National Board of Health, and *relieve the Marine Hospital Service from further* duties in that direction.

The provisions of the Bill are simple and not likely to bring the Bureau in collision with the State Boards of Health or sanitary regulations, and yet the powers conferred are sufficient for the establishment and maintenance of all such necessary measures as are calculated to prevent the importation of contagions and infections either by persons or goods, for the collection and publication of information concerning the prevalence of epidemic and infectious diseases in all foreign countries with which we have commercial relations, and for prosecuting of original scientific investigations concerning the nature, origin, and prevention of contagious and epidemic diseases both in the United States and in foreign countries. The Commissioner is also authorized to employ such assistants, clerks and scientific experts as may be necessary, with the consent of the Secretary of the Interior.

The introduction of this Bill is the first move we have seen relating to health or sanitary regulations by the general government, which was in the right direction and founded on correct principles. All propositions hitherto made to establish National Boards of Health consisting of several members, representing different sections of the country and somewhat different interests, have two radical defects. First, they are too cumbrous, it being necessary that their most important duties should be performed while in session, and second, they inevitably contain more or less elements of discord. A permanent government Bureau under an intelligent Commissioner, with all necessary assistants, avoids both these evils and affords the best prospect for promptness and efficiency of action. We hope, therefore, that the Bill will speedily pass both Houses of Congress and become a law.

IMPORTANT NOTICE

We have received from the Treasurer of the American Medical Association, the names of one hundred and fifty three members of the Association who have not paid their annual membership dues since 1883 Consequently their names have been suspended from the mail list of The Journal, and will remain so until we are notified by the Treasurer that their dues have been paid Any of them who choose to pay their arrearages to the Treasurer before June 30th, when the current volume closes, can have their files completed We have also received, from the same officer, the names of two hundred and one members who have not paid their dues for the current year, now nearing its close All members who attend the annual meetings of the Association are required to pay the membership fee in advance, before they can take a seat in the meeting, and it is manifestly unfair for those who do not attend the meetings to neglect the payment of their annual fees until the end of the year, or longer, and still be receiving The Journal the same as those who pay promptly As many of those who are still indebted for the current year may pay up at the coming meeting at St Louis, we have thought best not to suspend their names from our mail list until after that meeting But the Association should adopt a rule, or by law, making all annual dues from members payable before the 1st of July of each year, and in default, their names to be liable to suspension from the mail list of The Journal

INJUSTICE TO DR FANCOURT BARNES

In the April, 1886, number of the *American Journal of the Medical Sciences* is a review of the "System of Obstetric Medicine and Surgery" by Drs Robert and Fancourt Barnes The writer of the review says, page 522 "Unfortunately, there is a little matter relating to the publication by Fancourt Barnes of a German Medical Dictionary, which does not dispose the profession of this country kindly toward him That this little volume, published as his, was boldly copied from one the production of an American physician, is only too evident from the fact that the very errors of the one duly appear in the other" The reviewer gives the name of the American physician as George R Cut*l*er instead of Cutter! From this it seems that the reviewer is not familiar with Dr Cutter's book Dr Cutter's Dictionary contains about 13,000 words, and that of Dr Barnes about 22,000, from which it seems that he is not familiar with Barnes's book! How a book can be "boldly copied" from one only a little more than half as large does not appear All of the errors in Dr Cutter's Dictionary do not appear in Barnes's Dictionary, very many were corrected But the fact that the two books contain the *same* errors in many places proves nothing Dunglison's Medical Dictionary contains an error that is to be found in Cotgrave's French and and English Dictionary, published in 1660, and our large unabridged dictionaries contain propagated errors sufficient to convict the authors of plagiarism from any one of half a dozen lexicographers, if this be sufficient evidence for conviction Of these we need only cite Richardson's Dictionary, Todd's Johnson, Webster and Worcester As a matter of fact, too, Barnes's Dictionary contains errors in words that are not in Cutter's Dictionary at all, and other errors in words that are correctly given in Cutter

Great injustice in regard to this matter has been done Dr Barnes in this country, as this same fable was put in circulation when his book first appeared We can give the names of several German students, prominent physicians in this country, who believed it and would not get the book Some had never even seen it until their attention was called to it, but they knew the story, though it is far superior to Dr Cutter's Dictionary An importing firm in the East brought over a lot of about 500, and had sold a few when they received a note containing this charge They bought up the few copies that had been sold, so far as they could, and shipped the whole lot back to England without even making an investigation We have no quarrel with anyone in this matter, but make this statement in simple justice to one who is not in this country to defend himself E

SOCIETY PROCEEDINGS

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, March 4th, 1886

The President, B F Baer, M D, in the Chair

MENSTRUAL EPILEPSY

Dr Howard A Kelly exhibited recent specimens of tubal and ovarian disease, removed within the past two weeks The first specimens to which he called attention were removed from a patient 21 years of age who has suffered from an aggravated menstrual epilepsy from the very first appearance of the function There was no difficulty whatever in the removal through a small incision into which two fingers could just be slipped The whole operation, from beginning to complete closure, took but twenty-four minutes The right ovary was deformed by a very prominent nodule, about one and a half centimetres in diameter, which burst on removal, discharging a watery fluid, and was shown by its lining membrane to be the last corpus luteum

The second specimens were rare examples of *Hydrosalpinx, with Congenital Deficiency of Tubes and Broad Ligaments* In this case there was malformation of the distal ends of the tubes, broad ligaments and ovaries The left tube is as large as a bologna sausage It was brought into view with great difficulty after separating many light adhesions to the pelvic walls, while the isthmus is much enlarged and thickened, the great distension is at the involuted ampulla The operator was materially assisted in bringing this tube into view by upward pressure on the cervix by a hand in the vagina The fimbriated extremities were lost in a mass of vascular and fibrous tissue forming a broad ligament, and deep down in this were imbedded the somewhat hard, elongated, large ovaries It was utterly out of the question to attempt a removal of the ovaries, and any such operation would have been of a very desperate character, nor did he, Dr Kelly, regret this in the least, as he had planned his operation for *tubal* disease, to which he attributed all the patient's sufferings The right tube was as large as his middle finger and was also distended with watery fluid

The other specimen was a very large *Hæmato Salpinx* This tube, the left, about four inches long, burst as he was removing it, discharging four ounces of tarry blood It was very adherent, having several attachments to intestine and omentum The dilatation is here, too, seen to be at the ampulla, which extended far beyond the ovary back into the cul de-sac The ovary is embraced by the isthmus, and presents a curious appearance as it lies, about twice the normal size, imbedded in a sort of ball and socket manner below the isthmus Where it is laid open the tube is converted into one large sac

Dr Joseph Price remarked that the tube was so large that the uterus had been pushed aside by it Great care was required in its removal

Dr Chas Herman Thomas said that some time since he should not have recognized such a condition, but now he can, the result of experience in bimanual examination He would like to hear further on this point of diagnosis

Dr B F Baer thought it very unfortunate that the ovaries as well as the tubes could not have been removed in the case just reported by Dr Kelly, for their presence will probably result in the usual monthly congestion, and consequently the pain and other pelvic distress for the relief of which the operation was performed, may continue to exist There are several cases on record in which the tubes were removed and the ovaries allowed to remain, but the results have not been reported He could see no reason why this should be done unless the ovaries cannot be found, or some other insurmountable difficulty presents itself He fully believes in the advantages of prolonged and thorough palliative treatment in these cases Benefit usually follows, and sometimes cure, at least operation is rendered less difficult and more likely to be followed by recovery of the patient, both from the operation itself and the symptoms Certainly the application of remedies such as iodine to the fundus of the vagina and the interior of the uterus, with prolonged rest and general building up of the system, will have a strong influence in attenuating adhesions, promoting absorption of lymph and possibly, if not probably, in cure of the patient without operation

It should not not be forgotten that removal of the tubes and ovaries in these cases does not cure absolutely in every case He believes that we will be called upon in a few years by many of these cases which have been operated upon to relieve symptoms which still exist or have returned, and for the relief of which operation had been performed, just as we have been called upon from time to time and pestered by those old cases of chronic hypertrophy and retroflexion of the uterus with pelvic adhesions He has now under his care one of his own cases upon which he operated for the relief of symptoms, the result of disease of the tubes and ovaries with pelvic adhesions The patient made a good recovery and appeared to have been cured, but the symptoms have returned, and she is now complaining almost as much as before the operation She also has periodical attacks of metrorrhagia This, of course, is an unusual case He has another patient under his care, who was operated upon in a neighboring city by removal of the tubes and ovaries, and is treating her for the same symptoms of which she had complained before the operation He is an advocate of the operation in some cases, but he pleads for due deliberation and the exhaustion of careful palliative and preparatory measures before operation is resorted to Many cases will get well without operation Some will not be benefited if operation is performed, and there is some danger in laparotomy, although Tait has had such remarkable success

Dr Da Costa inquired if Dr Kelly had tried the benefits of rest and treatment before operating?

Dr Joseph Price said that the recurrence of symptoms seemed to indicate partial removal of the tubes and ovaries One of the fundamental rules of surgery is to seek for pus when it is probably present and in all cases to remove it if possible When the ligatures will cut through the tubal stump on account of its cheesy character, hæmorrhage may be prevented by the application of the cautery

Dr Kelly, in closing the discussion, said he did not in the least regret that the ovaries could not be removed, as he had operated for tubal disease, not for ovarian and he admired the zeal of Schrœder, who, instead of always removing the ovary, sometimes resected diseased portions In all the cases of tubal and ovarian disease upon which he had operated, months and years of careful treatment had been wasted, and now, where he diagnosticated pyosalpinx, the only delay he allowed was to put the patient in the best possible condition for operation Topical, external and internal, treatment is utterly futile, and never does more than secure temporary palliation

Dr Kelly's reliance regarding diagnosis lay entirely in a skilled bimanual examination, by which he always accurately mapped out all the peculiarities of the case before operation If there is rigidity and resistance it is necessary to etherize, but he has yet to see the case where the presumptive signs were those of tubal and lesser ovarian disease, where the structures could not be picked up between the two hands and outlined. He considers that this tact has been largely developed by persistently examining the condition of the appendages to the utmost possible extent as a routine practice in all cases which come under his notice. Introducing the finger as high as possible, by forcing the hand well under the pubic arch, and carrying the sensitive pulp up against the post fornix or either lateral fornix, and then playing up and down with the other hand pressing on the abdomen and creeping a quarter inch at a time, without ever fully relaxing, and letting structures in between roll through the two fingers, and in case of an ovary, running round its whole periphery, or of a tube tracing it up to the cornu uteri and down into the retro uterine pouch, where it generally terminates, give often most surprising results, and would doubtless, if fully carried out, change hundreds of diagnoses of leucorrhœa, endometritis and flexions with adhesions, to the far more serious ones of pyo- or hæmato salpinx.

Dr. Joseph Price exhibited some

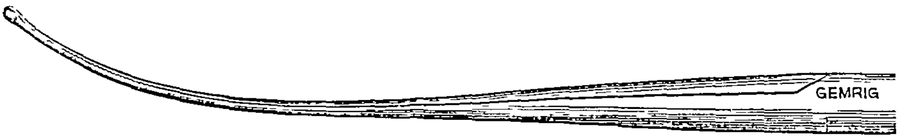
SPECIMENS OF PYO SALPINX

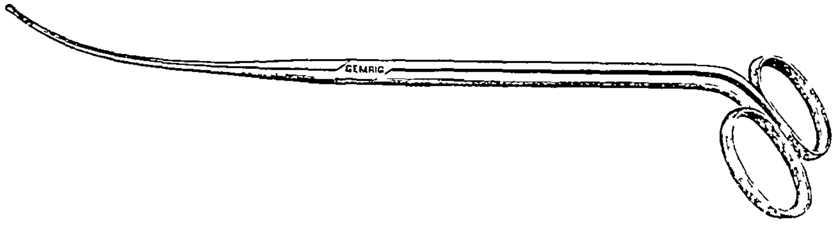
from two patients, and afterwards remarked that Tait and Keith have ended the dark period by showing us how to operate on the abdomen and pelvis without fear and with little risk. The wonderful advance in pelvic and abdominal surgery should be placed to their credit. He believes it is now universally admitted that they have reached the very acme of perfection. One surely must be a convert to Tait's law to contend with the great difficulties in pelvic surgery: "That in every case of disease in the abdomen or pelvis, in which the health is destroyed or life threatened, and in which the condition is not evidently due to malignant disease, an exploration of the cavity should be made." Standard works on ovariotomy dwell at great length on the subject of adhesions as the most important and difficult complication with which the operator has to contend. In short, in pelvic operations the risk and the difficulty will ever lie in the separation of organized inflammatory products. Adhesions, when old, between the pelvic viscera and diseased tubes, become degenerate and hence easily ruptured. In one case only have strong adhesions, deep in the pelvis, stayed his hand. The right tube and ovary adhered strongly to the sac and right side of the uterus, and the whole adherent mass was absolutely inseparable. Again, the rupture of pus tubes or cysts filled with inflammatory, septic or malignant elements, will be followed by serious symptoms. Operation becomes difficult when the ovaries and tubes, tightly distended with pus, and softened through pathological changes, cheesy in consistence, are matted together with the rectum and small intestines.

Dr. Charles Hermon Thomas exhibited a

UTERINE APPLICATOR AND DRESSING-FORCEPS COMBINED

This instrument, which is is specially adapted to making applications within the cavities of the neck and body of the uterus, but which is also available for making dressings and applications to the vagina and external surface of the cervix, has borne the test of two years' use. It is in forceps form, the blades are strong and resistent from the handles forward about two thirds of their length, when they narrow rapidly, so that taken together they become about equal in size to the ordinary uterine sound. This narrow portion, somewhat suggestive of the long beak of the angular ear forceps, is about three and a half inches in length, the tips being roughened on their opposed surfaces. It holds securely the smallest pledget of cotton, and by reason of the springy character of the beak will permit the locking of the handles when a full sized pledget or tampon is placed within its grasp. The point is slightly probed as an extra precaution when introduced to the uterine fundus, though a small cotton ball answers all needful purposes as a protective tip. I have usually employed the plain point on account of its occupying less space at the internal os uteri. The beak is curved to a shape corresponding very closely to that of Ellinger's dilator, and which has been found so generally well adapted to entering the uterus. This portion is electro plated with gold, when so ordered (a proceeding of moderate cost and to be commended) as a protective against the corrosive action of iodine, iodized phenol, and the like, which so rapidly destroy nickel plating and corrode pol-polished steel surfaces. The instrument was made under Dr. Thomas's directions by J. H. Gemrig & Son, of Philadelphia.





Some practical points of use may be mentioned Soiled or medicated cotton is easily removed with the use of one hand only by simply unlocking the handles and wiping the point in a crumpled paper, thus leaving the other hand free for other employment, and avoiding the trouble, the soiling of the fingers, and the whittling often involved when the wire applicator is used In its use there is immunity from the rasp action of the closely wrapped cotton of the wire applicator, and also a greatly increased carrying capacity of the cotton for medicated liquid Moreover, it will be found convenient and desirable to make use of the instrument as a uterine sound incidentally in certain instances In my own experience it has proved practicable as an applicator, one fully meeting the needs of most cases, while as a uterine dressing forceps for general use it has been found so satisfactory as to have superseded all other instruments of this class

Dr Baer said the instrument presented by Dr Thomas is a very ingenious one, and will doubtless serve a good purpose where the cervical canal is patulous, a greater quantity of the medicating agent used can be carried to the diseased surface than when the tightly wrapped cotton is used

Dr J F Wilson has nothing to add to what Dr Thomas has said He has used one for several months and can agree with Dr Thomas as to the ease of application and removal of soiled cotton

Dr Parish said that the forceps was valuable and would be much used As an applicator it will be very convenient A few years ago the sound and applications were too much used, but extremes either way are wrong Applications to the endometrium are sometimes needed

Dr H A Kelly said this is a very valuable instrument

Dr Parish exhibited a specimen of

OVARIAN TUMOR,

removed the previous day The symptoms had been very peculiar and the form of the abdomen was misleading, there being a deep groove across the hypogastric portion of the tumor Numerous adhesions gave great fixity These adhesions embraced the colon, parietes and bladder, and were old and dense Its rapid growth had raised a question of malignancy A great portion of the tumor was solid

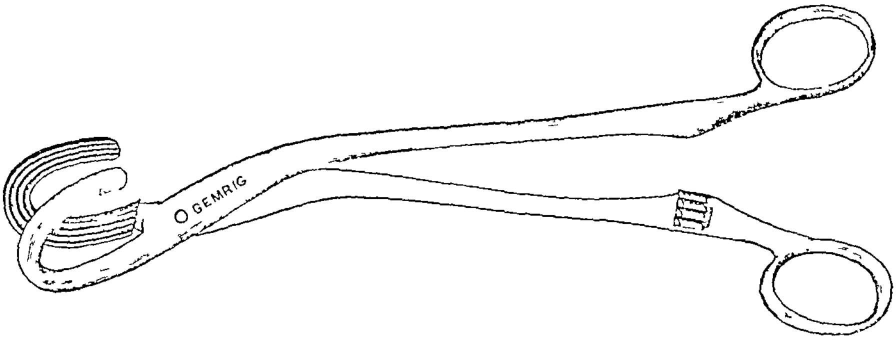
Dr Harris remarked that a microscopic examination of the tumor should be made There had been great difficulty in diagnosis as to the origin and character of the tumor A slight fluctuation could be detected in the lower portion under the use of an anæsthetic There had been no uterine symptoms, and menstruation had been regular The long fallopian tube crossed the tumor and made a deep constriction across its middle

Dr Baer did not think rapid growth a proof of malignancy He had seen five or six cases of very rapid development, one in three months contained a bucketful of fluid In none of these cases had there been any return or other sign of malignancy The presence of papillomatous growths within the cyst is no proof of malignancy

Dr Joseph Price exhibited a

FORCEPS

for the complete closure of the trocar puncture in ovariotomy



MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, February 24, 1886

The President, C H A Kleinschmidt, M D, in the Chair

T E McArdle, M D, Secretary

Dr G S Palmer presented specimens of

ABSCESS OF THE CORPUS STRIATUM, AND ADHESION BETWEEN THE GALL BLADDER AND THE COLON

The case to which your attention has been called by the Secretary's cards for me to report this evening, presents some points of interest both in its history and in the appearance presented by the post-mortem examination, and may suggest questions and elicit discussions which will be interesting and useful This case also reminds us of the humiliating fact that we are yet sometimes obliged to depend upon an autopsy for a correct diagnosis of our case

The patient, Mrs ——, age 66, married and mother of three children, died in the early part of this month, and a post mortem examination was made by Dr D S Lamb five hours after death As a child and a young woman this patient enjoyed good health, but she belonged to a short-lived family, she being the oldest of ten brothers and sisters, all of whom died many years before she did Fourteen years ago she had a severe and protracted sickness caused principally by an acute inflammation in the right hypochondriac region. At the time, this inflammation seemed to pervade the duodenum and the pyloric orifice of the stomach. It evidently involved some portion of the peritoneum, as the severe pain, rapid pulse, tenderness and prostration plainly indicated.

Some light is shed upon this part of the case by the autopsy, which discloses a firm adhesion between the hepatic flexure of the colon and the fundus of the gall bladder, and an almost entire obliteration of that cyst; in fact, the gall bladder is reduced to the size of a small tube, and extends from the cystic duct to the fundus of the gall-bladder where it is adherent to the colon, where there has evidently been a free opening, so that that part of the bile which is usually held in reserve in the gall bladder has passed directly from the cystic duct through the opening into the colon.

The most plausible explanation which I can offer for this state of things is, that just prior to the sickness spoken of above, gall stones had accumulated in the gall bladder to such an extent, or of such irritating character, as to set up inflammation in that organ, and by contiguous sympathy to induce the same in the colon and cause adhesions between them, which was followed by an ulcerative opening in the walls of each, so that the gall stones and the bile passed freely into the bowel. This may account, in part at least, for the frequent attacks of jaundice which the patient had during the last fourteen years of her life. In the healthy or physiological state, bile is not found in the large intestine, and we know very well that the ascending and transverse colon are abundantly supplied with absorbent vessels so that the bile falling into the colon through this opening would be easily taken up and carried into the general circulation, and thus give rise to jaundice. About five years ago this patient, apparently from a severe mental shock, became much depressed; she lost her appetite, grew feeble in body, and at times was a little off in her mind. Tonics, stimulants, and tender care all failed to improve her, and travel was suggested. After a short absence among new scenes and new faces she returned much improved, but not quite well. She had now for nearly two years frequent attacks of jaundice, almost continuous dyspepsia, and some slight disturbance of the mental faculties; in fact, these symptoms continued with variations to the end of life.

About two years ago the mucous membrane of the mouth and pharynx took on an aphthous condition, which continued for a long time, and finally the surface of the tongue became ulcerated, and for more than a year that organ presented the appearance of raw beef. During this time there was not only a complete loss of appetite, but also a loathing of food and very imperfect digestion of the little food which passed into the stomach. Under the use of chalybeates, arsenic, mineral waters, bismuth, etc., and numerous mouth washes, these ulcers of the tongue healed and the papillæ and mucous surfaces appeared quite natural, but the sense of taste never returned. She could feel the food in her mouth but it had no natural taste; whether this loss of taste was caused by a morbid condition of the peripheral terminations of the gustatory nerves, or whether their deep seated origins were at fault, it was impossible to tell. About one year ago this patient's hair began to fall off, so that in a few months ever spear had disappeared from the scalp; the eyebrows and eyelashes fell off also and most of the hair from the other parts of the body, thus presenting a typical case of alopecia universalis. No disease of the hair follicles could be detected by the naked eye; the hairs seemed to drop out for want of nourishment, the follicles closed up and the scalp became smooth and shiny and remained so till death. A remarkable paleness pervaded the whole body at this time, giving unmistakable evidence of anæmia. About five months ago she began to lose the use of her upper and lower extremities, so that she was in a very short time unable to stand upon her feet or to feed herself with her hands. A partial paralysis plainly existed. After a continued use of electricity for three or four weeks she regained the use of her muscles so that she played a simple tune on the piano. This paralysis was more marked on the right side of the body. The small softening found in the left corpus striatum may have been the cause of this paralytic condition. This patient had finally some attacks of bilious vomiting, followed by great prostration; after one of these she went into a comatose condition and died of exhaustion caused by anæmia, which was found at the autopsy to depend upon the atheromatous condition of the large arteries supplying the brain and other parts of the body.

It is remarkable that during all these last years of her sickness her pulse was regular, soft and natural; only a short time before death did it become small and more rapid; and the heart, notwithstanding the mitral valve was loaded with atheromatous deposit, gave no abnormal sounds. I know of no set of symptoms which would enable the most astute diagnostician to tell what he was dealing with in a case like this.

The treatment of this case has been principally to mitigate symptoms, and it is a pleasant reflection to know that had we had a full knowledge of the pathological conditions we could not have done better.

Dr. D. S. Lamb presented a specimen of

EXTRA UTERING PREGNANCY.

Mulatto woman, age 20, was admitted to Freedman's Hospital, D. C., September 25, 1885, with uterine hæmorrhage and acute peritonitis. After convalescense she went out of her own accord. Was readmitted November 27. Died February 19, 1886. A tumor was recognized above and to left of hypogastrium; this partially disappeared quite suddenly some days before death. She denied pregnancy.

Necroscopy by Dr. D. S. Lamb. Body well nourished; bloody fluid in pericardium; heart flabby; old firm adhesions of left lung everywhere; right pleuræ contained about a pint of dirty, bloody, purulent liquid; lung collapsed; abdomen much distended with gases; contained some bloody liquid; uterus enlarged; left fallopian tube converted into a large sac with thick walls, placenta in left anterior portion, this sac had formed old cord like adhesions to intestines, and also recent ones, it had ruptured posteriorly, edges very ragged, fœtus lying in abdominal cavity above and to left of uterus The fœtus, ragged edge of sac, placenta and cord, liver, spleen and kidneys were far advanced in decomposition

DR J F HARTIGAN presented a specimen of

GUN SHOT WOUND OF THE HEART

J C , æt 14, was shot accidentally on the evening of February 20, 1886 Deceased was going up stairs when the revolver was discharged from the landing above Immediately he whirled about, fled through the front room about twenty feet, and fell down the porch steps exhausted He lived about four minutes

The necropsy showed the ball to have entered the left border of the sternum, on a line with the cartilage of third rib, it then penetrated about the middle of right ventricle of heart, and, passing diagonally downwards, made its exit in the posterior aspect of left ventricle, near the apex, the anterior wound of the organ was an inch in length, the posterior an inch and three quarters, presenting a chasm like appearance from tissue destruction Having wounded in succession the lung, liver and pancreas, the ball traversed the psoas muscle, fractured the crest of the ileum, and finally lodged in the glutens maximus, under the skin

The case is interesting in two aspects first, on account of the course of the missile, although this may be accounted for in a measure by the relative position of the perpetrator and victim, and secondly, the length of time deceased lived, and the extra ordinary physical exertion following an injury of the heart such as has been described

DR J FORD THOMPSON presented

AN OVARIAN CYST

from a patient on whom he had operated at the Garfield Hospital The patient is a Scotch woman 64 years old, the mother of seven children Menstruation ceased ten years ago Up to within the past eighteen months she enjoyed good health At that time œdema of the left foot and leg was noticed, and soon after the abdomen became slightly enlarged During the past three months she has been a good deal confined to her bed and has suffered much from nausea and vomiting

This case is worthy of record on account of the very slight degree of constitutional disturbance which followed the operation The operation was performed in the usual manner, except that in closing the wound, after ligating the pedicle and dropping it into the peritoneal cavity, three sets of sutures were employed First, the peritoneum was closed by a continuous suture of catgut, the linea alba brought together by a second line of catgut sutures, and finally the external integument was approximated by interrupted silver and silk-worm gut sutures The advantage of this mode of procedure is very obvious The sutured abscesses, so called, are avoided, or at all events, should abscess occur about the abdominal sutures, the entrance of pus into the abdominal cavity is prevented by the continuous suturing of the peritoneal surfaces This mode of suturing the abdominal opening also renders the patient less liable to ventral hernia from imperfect coaptation of the parts The patient was discharged cured in about a fortnight

---

Stated Meeting, March 3, 1886

DR D S LAMB (through Dr Smith) presented

A HEART WEIGHING THIRTY EIGHT OUNCES

It was removed from a tall, robust, dark mulatto man, who died February 20, 1886, of acute pericardial effusion Aortic valve somewhat thickened, left ventricle much dilated Aorta and branches somewhat atheromatous Other viscera normal Kidneys weighed thirteen ounces each

Necropsy made March 1, 1886, by Dr D S Lamb for Dr T C Smith, on a mulatto woman about 45 years of age Body somewhat emaciated, abdomen protuberant Lungs showed firm old pleuritic adhesions and were full of cheesy tubercles and vomicæ Heart appeared normal, not opened Liver firm, anæmic, firm old adhesions everywhere stomach and intestines generally collapsed and firmly adherent to adjoining viscera, abdominal wall, and tumor Kidneys showed hydronephrosis, especially marked in left, ureters dilated Uterus elongated, cavity five inches long, what appeared to be the body was of normal width, what appeared to be the fundus was enlarged by a large fibroid growth with thick capsule, in some places calcareous, its peritoneal covering thick, rough, whitish, dull looking, and covered with patches of old lymph and many thick vascular bands, posterior and lower portion, left side, showed a large irregular cavity with calcareous wall and cheesy contents, the adhesions were most marked around this cavity There were several small isolated tumors in left side of body of uterus (?) All the supplying vessels enlarged Ovaries and Fallopian tubes not identified Weight of uterus with tumor, sixteen pounds

THE DRUG ALVELOZ

DR J B HAMILTON recalled to the Society the fact that some months ago he had introduced at one of the meetings, a man who had been suffering from a lupoid ulcer of the face This patient had been treated with applications of alveloz, a drug which is indigenous to Brazil, and is there said to have a beneficial effect upon cancers, especially those of the epithelial variety When presented to the Society the man was to all appearances practically well, the ulcer having cicatrized Four months afterwards the sore reappeared At that time the specimen of the drug which Dr Hamilton had obtained from the State Department gave out, and he was unable to procure anything like it in the market Indeed, no two specimens purchased by him resembled each other None of them have had any effect With the specimen obtained directly from Brazil, through the Department of State, Dr Hamilton treated an epithelioma involving a part of the cheek, nose, and eye Pain and hæmorrhage were almost constant symptoms A few applications checked the hæmorrhage and relieved the pain The character of the granulations was entirely changed, and cicatrization was going on well The American Surgical Association being in session here at the time, he showed the case to several of the members, who agreed with him as to the cicatrization Dr J Collins Warren, of Boston, thought it a case of *noli me tangere*, a milder form of epithelioma Dr David Prince also saw the case The patient was rapidly improving when the supply of the drug became exhausted, and the disease is now as bad as before None of the recent applications have been at all useful Upon investigation, Dr Hamilton finds that other physicians have had the same experience, hence he concludes that alveloz as at present sold is either inert from deterioration, or fraudulent It is a resinous "juice," or "milk," gathered at certain seasons, and may deteriorate A fresh supply is expected soon to arrive In reply to a question of Dr Cook, he said his epithelial patient was said, in addition, to suffer from stone in the bladder, though he had not sounded his bladder Moreover, his general health was not good He had given him iodide of potassium whilst applying the alveloz When the alveloz gave out he continued the potassium in large doses without effect

Dr S S Adams said that when Dr Hamilton presented his first patient to the Society, Dr J Ford Thompson called attention to the fact that the ulcer was not completely healed and would doubtless return

Dr Hamilton said that the disease in this man had lasted for thirty years There was no pus and only a small bulla in one corner when Dr Hamilton brought him to the Society He was content with the freedom from trouble for four months, and a drug is certainly valuable which can exercise such a remarkable influence on an intractable ulcer

The American consul at Pernambuco sent specimens of the drug to the State Department, together with a history of the drug and its effect, this latter was written by a medical gentleman having a cancer hospital at Pernambuco It has been printed and can be obtained by application to the State Department The drug has been tried in France and England with varying results

STATE MEDICINE

PROPOSED NATIONAL BUREAU OF PUBLIC HEALTH

A BILL TO PREVENT THE INTRODUCTION OF CONTAGIOUS AND INFECTIOUS DISEASES INTO THE UNITED STATES, AND TO ESTABLISH A BUREAU OF PUBLIC HEALTH

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established in the Department of the Interior a Bureau of Public Health There shall be appointed from civil life by the President, by and with the advice and consent of the Senate, a Commissioner of Health, who shall be intrusted with the management of the Bureau herein established He shall be paid an annual salary of four thousand five hundred dollars For his use the Secretary of the Interior shall provide suitable offices, and, with the approval of the same, he shall employ such assistants and clerks as may be necessary

Sec 2 That it shall be the duty of the Department of State to obtain from the consular officers at foreign ports and places all available information in regard to the sanitary condition of such ports and places, and to transmit the same to the Bureau of Health, and said Bureau shall also obtain, through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary condition of ports and places within the United States, and shall prepare, publish, and transmit to the medical officers of the Marine Hospital Service, to collectors of customs, and to State and municipal health officers and authorities, weekly abstracts of the consular sanitary reports and other pertinent information received by said Bureau, and shall also, as far as it may be able, by means of the voluntary cooperation of State and municipal authorities, of public associations, and private persons, procure information relating to climatic and other conditions affecting the public health, and shall make an annual report of its operations to Congress, with such recommendations as it may deem important to the public interests, and said report, if ordered to be printed by Congress, shall be done under the direction of the Bureau That the necessary printing of the Bureau of Public Health shall be done at the Government Printing Office upon the requisition of the Commissioner of Health, in the same manner and subject to the same provisions as other public printing for the several Departments of the Government

Sec 3 That the Commissioner of Health shall, under the direction of the Secretary of the Interior, frame rules which, when approved by the President and issued by the Department of State, shall serve for the instruction of consular officers of the United States and of the medical officers serving at any foreign port. In compliance with these rules, every master of a vessel destined for a port of the United States shall be furnished with a certificate containing a detailed statement of the inspection of the vessel, cargo, crew, and passengers, and of the sanitary measures carried out at the expense of the vessel, or if such measures are not carried out, instant warning shall be transmitted to the Bureau, who shall immediately notify the quarantine authorities of the port of destination

Sec 4 That the Bureau of Public Health shall, with the approval of the Secretary of the Interior, make investigations, both in the United States and, if necessary, in foreign countries, into the nature, origin, and prevention of contagious and epidemic diseases, as well as the causes and conditions of particular outbreaks of disease in the United States, and shall publish and distribute documents relating to the prevention of disease

Sec 5 That the President is authorized, when requested by the Bureau of Public Health, and when the same can be done without prejudice to the public service, to detail officers from the several Departments of the Government for temporary duty, to act under the direction of said Bureau, to carry out the provisions of this act, and such officers shall receive no additional compensation except for actual and necessary expenses incurred in the performance of such duties When a detail of suitable officers can not be made, the Commissioner of Health may employ such experts, and for such time and in such manner as the funds at the disposal of the Bureau may warrant, subject to the approval of the Secretary of the Interior

SEC 6 That to defray the expenses incurred in carrying out the provisions of this act the sum of seventy-five thousand dollars, or so much thereof as may be necessary, is hereby appropriated, to be disbursed under the direction of the Secretary of the Interior, on the requisition of the Commissioner of Health

SEC 7 That an act entitled "An act to prevent the introduction of contagious and infectious diseases into the United States, and to establish a National Board of Health," approved March third, eighteen hundred and seventy nine, and all other acts and parts of acts conflicting with the provisions of this act, are hereby repealed

SEC 8 That this act shall take effect sixty days after its passage, within which time the Commissioner of Health shall be appointed

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

The Queen and the New College—The Old Colleges—Carelessness in Dispensing Drugs—Brain Surgery of the Stone Age

The announcement that the Queen will lay the foundation-stone of the building which the College of Physicians and the College of Surgeons are conjointly erecting on the Thames Embankment has been received with marked satisfaction by the profession It is to Queen Elizabeth that medicine owes its emancipation in England from many an old world absurdity derived from Arabic and Pagan sources, for it was Elizabeth who, at the request of old Dr Caius—the founder of the college bearing his name at Cambridge—sanctioned the practice of anatomy in this Kingdom, and thus laid the basis for a systematic scientific study of the body It seems, therefore, quite in the fitness of things that another queen should lay the first stone of the new academic building in which the rival Colleges of Physicians and Surgeons have been merged Times have changed since the days of Dr Caius, the aid of the "barber chirurgeon" at the sign of the red and white pole or a "Jew leech" skilled in simples is no longer sought The pharmacopœia is not disfigured by the quack remedies found in the first edition, and compounded some of them of more than 120 ingredients It is hardly possible to read of the rival Colleges of Physicians and Surgeons conjointly erecting an edifice for any common purposes without recalling the jealousy and bickering that led to constant quarrels in former days The surgeons, or, more correctly, the barber surgeons, were the older body of the two, for they were incorporated by a charter granted to them by Edward IV The physicians were constituted a college by letters patent of Henry VIII To put an end to the "irregular, unlearned and incompetent" practitioners who abounded in those days, he formed the celebrated Linacre with four others into a medical faculty This provoked the ire of the surgeons, and quarrels grew apace In Elizabeth's time there was a notable difficulty between the physicians and surgeons "whether a surgeon might give inward remedies in the sciatica, pox, or any other kind of ulcer or wound" The Bishop of London and the Master of the Rolls were both in favor of the surgeons, and old Dr Caius, then President of the physicians, was called before "My Lord Mayor" and others of the Queen's delegates to "plead for his college" He did this so successfully that it was unanimously decided that it was unlawful for surgeons to administer medicines in the instances cited After this the surgeons quarrelled with their colleagues the barbers and severed the connection Then the two companies quarrelled so outrageously that Henry VIII reunited them again as a "Master and Commonalty of Barbers and Surgeons" They kept together till 1745, when the surgeons departed to the Old Bailey, and subsequently, in 1800, formed the body in Lincoln's Inn now known as the College of Surgeons

The original College of Physicians was Linacre's Stone House, in Knightrider Street The house was given to the Faculty during the lifetime of Linacre, who was one of Henry VIII's physicians One of the most useful things the college ever did was to form a botanical garden in 1587 for the cultivation of rare plants of medicinal value The garden cost "forty marks English money" a year, and the eminent herbalist, John Gerarde, had charge of it After the Civil War the college was on the point of being sold as "church property" when a member, Dr Baldwin Harney, became its purchaser It was burnt down during the great fire, and rebuilt in Warwick Lane, near St Paul's In 1814 the college obtained from the Legislature power to hold its meetings in Westminster, and in 1820, through the efforts of Sir Henry Halford, the present building of the College of Physicians in Pall Mall was erected The College can boast among its list of Fellows many whose names the entire civilized world holds in honor and would be unwilling to forget Caius, Harvey—who bequeathed to the institution, along with other things, his "best Persian long carpet" and "pair of brass andirons with fire shovel and tongs of brass," Sir Thomas Browne, Sydenham, Sir Hans Sloane, Radcliffe, who was foolish enough to tell Queen Anne 'he would not have her two legs for her three kingdoms," Pepys, Watson, Holland, and Arnott The roll of the Physicians' College includes also the

Duke of Montagu, admitted in 1717, and the Duke of Richmond, in 1729

An interesting report of an inquiry into the accuracy of chemists and druggists in the dispensing of medicines from physicians' prescriptions has recently been presented by Dr Seaton Within the past seven months Dr Seaton has sent fifty prescriptions to various chemists and druggists and, in conjunction with Dr Otto Hehner, has analyzed the medicines obtained In order to carry out the inquiry in a broad spirit and without incurring any charge of splitting straws by cavilling at insignificant inaccuracies, the authors of the report drew the margin of error at 10 per cent over or under the amount of the active drug prescribed in each case, and the deviations of wider mark than this have been singled out for comment Out of fifty examples this limit was exceeded in seventeen—that is, in thirty four per cent, while in eight of these cases, or sixteen per cent, the error exceeded twenty per cent of the active ingredient prescribed Some of these errors, except inasmuch as they implied a culpable carelessness, were medically of no great consequence, but some few were serious from a medical point of view In one case pills were ordered, containing mercury and hyoscyamus Owing to carelessness, the mercury was so unevenly distributed through the dozen pills ordered that some contained a third more mercury than they should have contained In another case where corrosive sublimate was ordered the mixture contained one third more than the prescription ordered In a third instance where sub acetate of lead was prescribed the mixture contained nearly sixty per cent in excess Of sulphate of iron there was found a deficiency of eighty-five per cent

It is gratifying, however, to learn on reading further that the credit of the ordinary chemist is less assailed than may at first appear from the foregoing statements Of the total number of fifty prescriptions thirty were made up at the shops of chemists and druggists, and among these thirty cases there were only two of serious error At "doctors' shops," not yet obsolete rivals of legitimate pharmacy, two medicines were made up, one of which showed one of the gross errors already referred to At the co-operative stores fourteen medicines were made up, which included three cases of serious error Four prescriptions were submitted to a "drug company," and of these no less than three were inaccurately dealt with to the extent of more than twenty per cent It would appear, therefore, that the public are safer in going to the shop of the ordinary qualified and registered chemist than in taking their prescriptions to the "doctor's shop" or to the cooperative store

Professor V Horsley has delivered an address on the "Brain Surgery of the Stone Age" Professor Horsley mentioned the fact that many of these apertures were in the part of the skull over the motor area, and thought that the operations were chiefly for traumatic epilepsy G O M

DOMESTIC CORRESPONDENCE

BRANCHES OF THE ASSOCIATION

To the Editor of the Journal

Dear Sir —I have carefully read the letters which have followed the appearance of "Branch's" communication, and am rather surprised at the position which some of your correspondents have taken

In his last letter (Journal of March 6) "Branch" states that his object is "to increase the influence of the Association, and organize the profession," while he distinctly deprecates any idea of abolishing existing institutions The only point on which I am not clear is where he says that "a very large amount of red tape would be taken away from the requirements for admission to the Association when respectable and reputable physicians desire to enter," the object to be attained is organization, and the results which inevitably follow where that is successful

I am in perfect accord with your correspondent when he writes "If anyone can propose a plan which will be more acceptable to the majority than the Branch system, I will certainly not raise my voice against it, but I do not see that a plan is *necessarily* bad because it is imported from Europe " No scheme can attain the end in view that does not provide for an executive meeting when required, to which business and legal matters can be entrusted There are other objects for the American Medical Association than the mere advancement of science, but so long as that body only exists practically at an annual session, these objects must remain in abeyance Dr Hamilton considers that all we desire would be gained by admitting the members of affiliated State Societies, while Dr Baxter advocates a regulation whereby members of the regular profession can join the Association without presenting themselves in person for election These suggestions are embodied in the amendment permitting membership by application, which has been in existence for nearly two years, yet the number of applicants during that period is hardly what might have been expected This would seem to show that some incentive is needed, and that the real advantages and benefits of membership in the National Association should be brought home to the profession

"State Society" deals indirectly with the question of finance when suggesting a method by which the transactions of existing Societies, if incorporated, could be published in The Journal I cannot agree with him that the stricter application of the doctrine of "survival of the fittest" will, in the long run, be beneficial It would damage The Journal to print many of the papers found in the annual volumes of transactions of our State Societies, yet I think that the publication of these very papers is most desirable Their production involves considerable time and labor on the part of the writer, who is usually not facile, and it is but slight encouragement to better work if they are consigned to the waste paper basket

The whole question of finance is the great obstacle to encounter, and the most difficult problem to settle I do not advocate the abolition of existing institutions, though I should be sorry to maintain them if a more effective scheme of organization can be found The position of a State Society under the contemplated change, if that Society became a "Branch," would remain precisely as at present, except that every member would pay $5 annually to the treasurer of the Association, all their rights and privileges could be preserved, and their autonomy would be then, as now, complete In any change which is contemplated, the same system of local representation would exist, and the profession in a given district would be *de facto* responsible for the ethical conduct and good standing of the members drawn from it I cannot see how any of the "crooks and charlatans," whom Dr Keller fears, would have any better chance of admission, while the salutary influence of the Association over them would be materially increased "Illinois," whose letter contains very cogent figures, says "red tape is thus reduced to a minimum, and yet there is no more probability of a bad man getting in than into one of our State Societies" This applies to the British Medical Association, and would be just as true of the American, if contemplated changes were carried out A qualification for membership would still exist, and could be so arranged as to make some members personally responsible for the applicant "Illinois" very properly deprecates what he terms the "holier than thou" sentiment There are, in every community, physicians whose tendency to wander from the paths of ethical regularity, is unfortunate and marked When these men are outside the pale of any medical organization, they are free, but once on the roll, it becomes possible to train and discipline them, and the punishment of formal expulsion for obstinate contumacy cannot be lightly regarded I would always favor the largest possible membership for a Society in its district, believing that the best interests of the profession are thus more readily furthered

An "Active Member" is the first correspondent who has formulated a definite scheme, and one which presents many excellent points

The Triennial Congress is a good suggestion, and disposes of the inevitable clashing which would result between annual meetings of Branches and the National Association Some plan on that basis would be most feasible, but further sub division might be advantageous, especially in the more densely populated Eastern States I do not concur with his suggestion No 5, as I believe that once organized a Branch should have control of its own members, and their election, and that the qualification should be membership in a local Society

"Medicus" lays down two purposes "to be aimed at" in any change which is to be made

1 To so increase the numerical strength of the Association, as to make it, by virtue of its representative power, "the supreme authority upon all questions bearing upon the interests of medicine, and the professional and social deportment of its members"

2 "The advancement of medical science, and the collateral branches, and the elevation of the medical profession"

Both these purposes are to be kept in view, but the first is far more important What the profession wants is thorough organization, and a permanent representative executive body

Medical science is advanced in a general way by annual reunions, at which the rank and file of the profession are brought face to face with the great minds of the day, but save as an intelligent audience, it does not individually benefit them Take the list of members at a State Society meeting, where one or two hundred are present, and see how few have papers to read, or cases to report, or will join in the discussions The true source of medical cultivation is in the local society, which meets once or twice a month, when every member participates in the evening's proceedings, without that hesitancy which prevents many coming forward in the larger assemblies Papers are read, cases reported, and criticism invited, while opinions are freely expressed, in a manner impossible except under these conditions They promote harmony and good fellowship amongst the profession, maintaining its dignity, and defining its position, by following Art VII of the Code Nothing can supplant them, and any scheme which may be proposed will be strengthened by their incorporation as an integral part Among the functions which the National Association performs, are those where matters of general professional interest are concerned, examples of which are well shown in an editorial in THE JOURNAL for March 6

The profession wants representation, so systematized that when questions of vital moment and great public interest are involved it can meet the State or Federal Government, as an authoritative exponent of the wishes and opinions of its constituents I believe that this purpose can in no way be so well served as by the establishment of Branches of the American Medical Association, and I think that the ends of medical science and medical policy will be best aided if these Branches are numerous, established in arbitrary districts, formed with due regard to the numerical strength of the profession in a given area, and meeting frequently, say three or four times a year

Yours truly,

JAMES H PARKINSON, L R.C S

Sacramento, Cal

To THE EDITOR OF THE JOURNAL

Dear Sir —I have been much interested in the letter published in THE JOURNAL of Feb 6, and signed "Branch," relative to the establishment of a more intimate relation between the various State Societies and the American Medical Association The plan which "Branch" has so admirably and clearly presented in his letter is almost identical with one which I have for some time carried in my mind, and which, but for the unfortunate state of confusion and dissatisfaction now existing [illegible] profession, I would have ventured to lay befor [illegible] of T[illegible]URNAL some time ago To [illegible] others, the adoption of a p[illegible] cieties may become more [illegible] National Association seems [illegible] about to say, the only way o[illegible] again into that state of harmony so essential to the development of the great benefits which the Association may, and most certainly should confer upon the medical profession of America.

From a train of circumstances which cannot now be recalled, but are passed into history, the American Medical Association does not enjoy that degree of support and encouragement from the profession at large which its importance, as a scientific body, and its position, as the National representation of the medical talent of our country, assuredly merit and should undoubtedly receive. This desirable result can in no way be so certainly attained as through the active sympathy and hearty co-operation of the various State Societies in the aims and objects of the Association, which really is made up of, and exists only through the State Societies. If each State Society will accept and fill its place in the formation of the Association, there will no longer be cause for just complaint of the conduct or management of the Association. The plan proposed by "Branch" may be the best one, though it differs in some minor details from the idea which was in my own mind, and I would willingly see it adopted in place of the one I am about to describe, or I would gladly give support to a plan differing from either of these if it should seem that the good of the Association could be furthered by something else, better than by these.

I cannot think that at this time the State Societies will consent to be assigned a position as simple *Branches* of the American Medical Association. Their real position should undoubtedly be that of a Branch of the higher organization, of which they should be the willing adjuncts and essential components. The National Organization should have no being apart from that as the representative of the best and noblest elements of the State Societies, and should find its greatest pride and its highest honor in their celebrated distinction. The State Societies should feel an individual pride in the formation of the National body and an individual responsibility for its character and actions as the representative of the medical profession of the United States, and thus watch over and protect the Association from the hasty or injudicious acts of thoughtless or designing members.

The form which has appeared to me the best for the accomplishment of the above objects would be something as follows:

1. The American Medical Association is to consist of Branches corresponding to the several States and Territories of the United States.

2. Each State or Territorial Branch is to be the official local representative of the American Medical Association, and the diploma of membership in any State Medical Society is to be a title to Associate membership in the National Association.

3. Each State Society should be represented by delegates, according to the membership of the State Society, one delegate to be chosen for each members of the State Society.

4. The delegates so chosen "pro rata" are to form the "council" or governing body of the Association, and to take charge of all its movements, subject to such restraints as may be thought judicious on the part of the Association.

5. From the delegates so appointed by the State Societies, the Officers of the Association shall be chosen, except the President, who may be chosen from without that body, or who may be elected in open meeting of the Association, by vote of the entire Association.

6. All members of State Societies who pay the dues of the American Medical Association, are thereby constituted Corporate members of the Association, and are entitled to take part in the transaction of business, and to receive the publications of the Association, and to enjoy all other rights and privileges pertaining to that body.

7. All other members of State Societies are thereby constituted Associate members of the American Medical Association, and may attend all the scientific meetings, and shall be enrolled in its catalogue, but they do not thereby gain the right to take action in its business meetings, nor to vote, nor do they receive the communications of the Association, or enjoy other privileges, except by permission of the coporate membership and the council.

8. The scientific labors of the Association are to be entrusted to committees chosen from the members of the council, from the Association at large, or from members of the medical or other professions outside the membership of the American Medical Association.

The plan here suggested, if it should be adopted, would have the effect of so enlarging the Association as to include the entire medical profession of the United States, so far as this is represented by State organizations as State Societies, and the diploma of membership in a State Medical Society would constitute the possessor of it at once an Associate member of the National Association, thus enrolling the entire State Medical Society membership in the membership of the National Association, as the body to which it naturally belongs, in this way attracting the profession to the Association, and inciting a more exalted degree of esteem and respect, and a greater emulation for that body, as the highest recognized medical organization of the country.

That this desirable object may be soon accomplished, and its beneficent results obtained is the ardent desire of many members of the medical profession in the BAY STATE.

ASSOCIATION ITEMS.

RAILWAY FACILITIES TO THE ASSOCIATION MEETING.—For the next meeting of the American Medical Association at St. Louis, Mo., from the 4th to 7th of May next, arrangements have been made with all of the principal railroads between the Atlantic ocean and Missouri river, to give delegates who pay full fare coming, return tickets at one-third fare. As yet the Commissioners of the Baltimore and Ohio, and Southern Passenger Association, not heard from. No doubt as to the same arrangements being made with them. In the next issue of this JOURNAL members will be fully advised of all arrangements with the various railroads. Delegates can come at any time they may wish before the meeting of the Association and will be allowed five days after the adjournment of the meeting, before they will be required to commence their return trip When purchasing tickets, get certificate from the railroad agent, at the starting point, showing the amount paid, the initals of road over which tickets reads, and office stamp where sold

Other weekly medical journals please copy

R M JORDAN, M D,
Chairman Transportation Committee
St Louis Mo

RAILWAY FARES FROM CHICAGO TO ST LOUIS — The Illinois Central, Chicago and Alton, and the Wabash Railways have agreed to fix the rates from Chicago to the meeting of the Association, for members, at $7 50 *round trip*

THE GRANT COUNTY MEDICAL SOCIETY AND THE ASSOCIATION —At a regular meeting of the Grant County, Indiana, Medical Society, on March 23, 1886, Dr William Lomox gave a short history of the difficulty or misunderstanding between the American Medical Association and certain members of the Executive Committee for the International Medical Congress, and offered a resolution of approval of the action of the Association The resolution was unanimously adopted S C WEDDINGTON, M D, *Sec'y*

RAILWAY FACILITIES TO THE ASSOCIATION MEETING —The regular through trains of the Illinois Central Railroad from Chicago to St Louis will afford excellent accommodations for delegates who wish to attend the meeting of the American Medical Association at St Louis the first week in May The night express, with Pullman sleeping cars, leaves Chicago at 8 30 P M, and arrives in St Louis at 7 A M The rates are $7 50 round trip

The rates on the Baltimore and Ohio Railway for those coming from the East and South east are full fare coming and one-third fare returning

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo, on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By-Laws*, Article 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology —Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky, *Secretary*

Obstetrics and Diseases of Women and Children —Dr S C Gordon, Portland, Me, *Chairman*, Dr J F Y Paine, Galveston, Texas, *Secretary*

Surgery and Anatomy —Dr Nicholas Senn, Milwaukee, Wis, *Chairman*, Dr H H Mudd, St Louis, Mo, *Secretary*

State Medicine —Dr John H Rauch, Springfield, Ill, *Chairman*, Dr F E Daniel, Austin, Texas, *Secretary*

Ophthalmology, Otology, Laryngology —Dr Eugene Smith, Detroit, Mich, *Chairman*, Dr J F Fulton, St Paul, Minn, *Secretary*

Diseases of Children —Dr W D Haggard, Nashville, Tenn, *Chairman*, Dr W B Lawrence, Batesville, Ark, *Secretary*

Oral and Dental Surgery —Dr John S Marshall, Chicago Ill, *Chairman*, Dr A E Baldwin, Chicago, Ill, *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich —Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence

WM B ATKINSON, M D,
Permanent Secretary
1400 Pine St, S W cor Philadelphia

MISCE

STATE MEDICAL S
Eleventh Annual Sessi
Wedn and
menc W
Nc ov
remo 94 5th
Madi bc

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI Chicago, April 17, 1886 No 16

ORIGINAL LECTURES

DIGITAL EXPLORATION OF LUMBAR ABSCESSES

A Clinical Lecture delivered in the Mercy Hospital, Chicago (Service of Edmund Andrews, M D , and E Wyllys Andrews, M D),

BY EDMUND ANDREWS, M D , LL D ,

PROFESSOR OF CLINICAL SURGERY IN THE CHICAGO MEDICAL COLLEGE, AND SURGEON TO THE MERCY HOSPITAL

Were it possible to lay open a lumbar abscess throughout its whole extent, and treat it thoroughly in every part as an open sore, we would eliminate nearly all its dangers, except in tuberculous cases Now, by thorough digital examination of their interiors, followed by resolute incisions and tubing, we approximate to this condition of safety Let us see what may be done for the patient before us on this principle

He is not aware of the real nature of his disease, but supposes he has a hip disease There is a large fluctuating tumor on the outer side of the left thigh, below the trochanter, but pressure, rotation and friction of the joint surfaces upon each other elicit no pain There is no hip disease I now make a free incision into the abscess and evacuate almost a quart of pus Introducing my finger and long probes I trace the cavity, not to the hip joint, but upwards and backwards into the sciatic notch, where it enters the pelvis We will insert a large drainage tube and explore at a higher point Just over the posterior part of the crest of the ilium there is an old fistulous orifice, too small and contracted to allow a free discharge of pus This, I suppose, opens into the same inner passage which goes downwards through the pelvis, out of the sciatic notch and into the great abscess of the thigh We will open it widely and cut off the supply of pus to the cavities below

Introducing my finger I find the usual expansion of the sac under the skin, with a narrow inner orifice leading to the interior of the body I enlarge this inner passage with the bistoury, and now can insert my finger into the cavity of the trunk behind the thickened peritoneum At this point I find a channel extending down towards the sciatic notch, and also a pouch like passage running forwards along the internal iliac fossa and expanding into a sac behind the region of the anterior superior spinous process and the outer third of Poupart's ligament Here the thickening of parts and pressure of the abscess have pushed away the peritoneum, making plenty of room for another incision Passing a bent metallic staff into this pouch I feel the pressure of its extremity, and cut down upon it from without, with a free incision I can now introduce a finger into the anterior orifice, and another into the posterior one, and bring them together in the cavity We will next pass a large drainage-tube through, leaving an end out at each orifice

Returning to the posterior incision, I insert the finger again, and trace another channel upwards behind the bistoury and within the lower ribs I now cut down upon my finger just below the twelfth rib, alongside the common mass of the spinal muscles, and carry another long and large tube down from this orifice, bringing its lower end out through the orifice below, alongside the posterior end of the iliac tube We can trace with the probe a canal running still upwards to the ninth dorsal vertebra, where we find externally the usual projecting knob characterizing Pott's disease Here is the fountain head of the pus which has burrowed through all the long and complicated passages below, exhausting the patient, not by drainage, as the old surgeons said, but by the want of drainage, or more accurately, by the absorption of putrid pus from all these vast interior surfaces, which will now collapse down upon the tubes and become healed

There still remains the short passage from the upper orifice to the carious bone We might excise a portion of the ninth rib behind, and endeavor to scrape away all carious bone from the vertebra, but in doing so we should have to deal with the ninth intercostal artery, which winds across the body of the affected vertebra in a situation which renders it pretty difficult of management Our incisions and tubing below, followed up with antiseptic injections, will relieve the patient of most of the causes of his debility The upper short segment of the channel between the upper incision and the affected bone is too small in extent to cause great debility, and we will inject it daily with antiseptics, under which treatment not a few cases will heal, the carious spicules of bone being partly washed away and partly absorbed If this result be not accomplished, we will resort to a plan by which I have often removed dead bone from different parts of the body inaccessible to instruments I refer to the solvent use of diluted hydrochloric acid, a resource which is strangely neglected by most surgeons To carry out this plan it will be necessary to open the intercostal space opposite the affected vertebra, widening this space, if necessary, by cutting a broad notch in the rib below

Now, passing up from the incision below a sound or catheter, and identifying its location by touch or by the use of needles, we cut into the abscess cavity at its very fountain head If the dead bone be found loose, we can then pick it out, if not, a tube is inserted well against the bone, and being attached to a fountain syringe full of diluted hydrochloric acid, it transmits a quart of the solvent slowly against and across the carious spot This is repeated daily, and if the bone is fairly reached by the tube every dead particle is effectually dissolved out The incision is kept well open by a good drainage-tube until the cavity within is healed

When the lumbar vertebræ are affected they are much more accessible The finger can come directly upon them, and there being no intercostal arteries there, they can be scooped and scraped, if one simply avoids the aorta and the vena cava A few days ago I explored such a case Opening into the abscess alongside the erector spinal muscle, I found a pus cavity about five inches long extending up and down, and perhaps two and a half inches wide In it lay two very small pieces of dead bone, which I removed The third lumbar vertebra had been affected with caries, causing the usual external deformity Exploration by the finger within showed a considerable concavity in the side of the body of the vertebra, but it was fully healed, being firm and well covered with granulations The size of the cavity showed that much more bone had been lost than was accounted for by the pieces found The remainder must have been either absorbed or washed away

A careful examination by the finger and the probe showed that the caries was completely healed, and that under simple tubing and antiseptic injections the abscess will be permanently cured

ORIGINAL ARTICLES

THE VALUE OF BINIODIDE OF MERCURY AS AN ANTISPETIC IN OBSTETRICS[1]

BY EUGENE P BERNARDY, M D

At a meeting held June 4, 1885, I had the pleasure of reading before this Society a paper on the "Value of Biniodide of Mercury as an Antiseptic in Obstetrics" It was with hesitancy that I brought forward the claims of a new agent whose properties were at that time comparatively unknown My only knowledge of its effects was that which I had derived from reading the experiments of Dr Miquel, of France, and from my experience in three cases To-night I again bring it to your notice, not as an unknown and untried antiseptic, but as one which has proved itself far superior to any of this class of preparation which I have thus far used in obstetric practice Since writing my last paper I have learned that the biniodide of mercury has been used for the past year in preference to all other antiseptics at the Lariboisière Maternité, of Paris, and the reports of the results obtained have likewise been highly favorable

In a letter written by Dr Thos Linn from Paris, France, to the *Philadelphia Medical Times* (March 6, 1886), referring to the subject of antisepsis, the following passage occurs

"Professor Panas has again something to say about antisepsis in eye surgery, principally in the treatment of cataract The principles that guide him are, first, to make use of an antiseptic that is *sure* and *not irritating* in its action Of all the antiseptics which he has used during the last two years, Dr Panas has now definitely adopted a solution of the biniodide of mercury in 20 to 1000 ($\frac{1}{20}$ to 100?)[1] Even in 40 to 1000 ($\frac{1}{40}$ to 1000?), this salt possesses a very strong anti fermentative power, so that at double the strength nothing should resist it As to the other antiseptics used, boric acid is not irritating, but its antiseptic power is doubtful, the bichloride of mercury is more irritating than the biniodide, and its antiseptic power is not half so great"

These remarks fully substantiate the opinion expressed in my former paper, that "I considered the biniodide of mercury far superior to the bichloride of mercury as an antiseptic" Of course, the cases of Dr Panas belong to eye-surgery, but still the experiments made in both classes of cases led to the same conclusions

I have here the history of eight other cases in which I found it necessary to use the biniodide I have perhaps given a fuller detail of circumstances than may appear necessary If I so erred, I have done it for the purpose of fully and clearly showing under what conditions the antiseptic was used

It will be observed how readily offensive odors disappeared after only a few injections of the biniodide In some of the cases the odor around the patient was perfectly horrible

Case 1 —On September 9, 1885, I was requested to attend Mrs F, residing at Fifty fifth and Vine Streets, in her fifth confinement Her previous labors had taken place in Belgium, and had always been terminated by the forceps, only two children being born alive The first and third lyings in were complicated by attacks of puerperal fever

I arrived about 2 P M Found the patient had been in labor since the previous evening (8 P M) On examination, found the os completely dilated, head presenting while to the left I felt what seemed to be a prolapsed cord The head seemed jammed between the promontory of the sacrum and the pubes I ruptured the bag of waters so I could make a more decisive examination Down came a loop of non pulsating cord, which proved to be irreducible on account of the position of the head The presentation was now made out to be a partial brow, an antero posterior contraction existed, the promontory of the sacrum caught the side of the head and pinned it in position I attempted to push the head up, but soon found it could not be done I then attempted to produce flexion, and failed Wallace's forceps met with similar results, on account of the unnatural position of the head, the forceps constantly slipped By this time I was completely exhausted I gave one half grain of morphiæ sulph, which would insure the patient needed rest, as her pains had all along been active

---

[1] Read before the Obstetrical Society of Philadelphia April 1 1886

[1] Evidently an error in proportion as in the formula given it is 1-20 gramme to the litre or 1 to 20 000

On my return at 5 P M, found the condition of things the same Dr A E Roussel, who came with me, etherized the patient I again attempted to change the position of the head, but failed Pagot's long forceps were applied, but on the slightest traction they would slip Tarnier's forceps seemed to grasp the head in a firmer manner, but they finally gave way I had now worked continuously for two hours Seeing there was no other resource, I perforated the head, and within twenty minutes the child was extracted, which weighed, without the brains, fifteen and one half pounds

The patient was living on the second floor, in a room partitioned off the main room of a factory The room was well located and freely supplied with fresh air, her husband was the nurse The next day found the pulse 100, temperature 101°, extreme tenderness over the abdomen, especially over the region of the uterus I washed out the uterus with the $\frac{1}{15000}$ solution of the biniodide of mercury, and left orders to have it done four times a day The second visit found the patient free from pain, pulse 80, temperature 98⅛ Convalescence went straight on as in a normal labor On the fourth day there was considerable pain over the uterus Towards evening, while washing out the vagina, a clot of blood about the size of a pigeon's egg was expelled, perfectly free from odor The patient was up on the eight day

Case 2 —Was called (October 5, 1885) to attend Mrs Mc, age 30, third confinement After an easy labor she was delivered of twins The placenta came away naturally, and everything went well up to the evening of the sixth day, when she became feverish and thirsty The vaginal discharges became highly offensive, so much that the windows had to be constantly kept open I immediately ordered injections (hot) of the $\frac{1}{4000}$ solution of the biniodide of mercury, asking the patient to note particularly when the odor disappeared The first injection was followed by no effect, but on the second injection being made, the odor disappeared and remained so during convalescence Discharged on the tenth day, well

Case 3 —On the morning of October 7, 1885, I was called to attend Mrs B, age 28, sixth confinement About a month previous she had called at my office, and I had given my opinion that the child she was carrying was undoubtedly dead, and that she was likely to fall in labor at any time On my arrival at the house, found, after examination, the os perfectly dilated and the bag of waters protruding between the vulvæ Ruptured the bag of waters, and of all stenches I never smelled the like The windows had to be thrown open On pushing my examination, found a small hydrocephalic child descending Labor was lingering, but finally the child (in a putrid condition) was expelled naturally The placenta came away without any trouble

I ordered the patient to be washed out with $\frac{1}{4000}$ solution of the biniodide of mercury four times a day The first injection I administered myself The second and third injections were followed by a slight stinging sensation, which I believe came from using water which was too hot, but, to make certain, I reduced the biniodide to the $\frac{1}{8000}$ Within two days the discharges became perfectly odorless Each injection was followed by a feeling of ease and comfort Discharged well on the ninth day

Case 4 —On October 23, 1885, I was requested to attend Mrs R, in her fourth confinement Her third lying in had been followed by a severe attack of puerperal fever Upon examination, found the os rigid, dilated about an inch, waters ruptured, vertex presentation, right occipito-posterior position Labor was lingering, os remaining somewhat rigid About 9 P M, finding that no headway had been made, and the patient by this time showing symptoms of exhaustion, she was then fully etherized I then applied Wallace's forceps and delivered her of a living child, no laceration The next day she complained of pain over the region of the uterus Ordered one-eighth grain morphiæ sulph in tablespoonful of camphor water every two hours On my next visit found the tenderness had increased and the discharges from the vagina were becoming offensive Ordered hot injections of the $\frac{1}{4000}$ solution biniodide of mercury The following day the discharges were free from odor, the tenderness of the uterus abated Discharged well on the fourteenth day

Case V—On the morning of November 3, 1885, I was asked to see Mrs C, first confinement In this patient a year previously I had dilated a constricted os Pregnancy was ushered in with marked kidney trouble, the urine yielded over thirty per cent of albumen The patient was enormously swollen from dropsical effusion The case from the start was not a promising one On arriving at the house, found the patient very nervous, on examination, found the os slightly rigid, but dilating, the waters ruptured, labor dragged on slowly all day, with very little advance Towards 12, midnight she suddenly went into a spasm I immediately etherized her By the time she was completely etherized Dr Curtin, whom I had sent for, arrived On examination the os was found dilated, slightly rigid, the ether was pushed, with the effect of softening the os I then applied Simpson's forceps, but they would not hold, Wallace's long forceps were applied, and in a short time the patient was delivered of a fine bouncing boy, no laceration

The next visit found the patient doing well, pulse about 80, temperature normal On my second visit the temperature was 120°, pulse 120–130, great fever, excessive tenderness of the uterus, the discharges very offensive This sudden change was caused by the stupidity and incompetency of the nurse The nurse being discharged, the mother of the patient undertook to nurse her I immediately ordered hot injections of $\frac{1}{4000}$ solution of biniodide of mercury

The second injection the odor disappeared, but in this case did not remain away, I believe it was on account of not having a competent person to use the injections Even as imperfectly as my orders were carried out, the biniodide held the odor under control as the discharges were never as offensive as before its use The patient was discharged well on the fifteenth day

Case 6—On November 11, 1885, I attended Mrs L in her fifth confinement, her last two confinements had been followed by puerperal fever She had been delivered by an excellent and careful obstetrician She dreaded the present confinement On arrival found the child was born, in a short time the placenta came away The next visit found the patient doing well, with the exception of some tenderness over the uterus Being compelled to leave the city, I handed the case over to Dr A E Roussel On his first visit the patient was feverish, pulse 100, temperature 101°, discharges extremely offensive, excessive tenderness over the uterus Internally, 2 grains of quinine and ⅛ grain morph sulph were ordered every three hours, and four times a day hot injections of the $\frac{1}{4000}$ solution of the biniodide of mercury On his next visit found the patient better and the discharges free from odor The patient was discharged on the ninth day well, feeling satisfied that the *red pills*, as she called the pellets of the biniodide, had saved her from another attack of puerperal fever

Case 7—Mrs B, on December 28, 1885, miscarried about the fifth month On my arrival at the bedside, found the fœtus had been expelled early during the day, the hæmorrhage had been excessive, on examination, found shreds of placenta in the vagina, could detect a larger portion in the uterus The patient declined any interference, stating that it would come away itself The patient lived in a small, ill-ventilated house, up a court, having for nurses the neighboring women Gave freely of ergot, but without effect, within twenty-four hours the odor from the vaginal discharges was highly offensive, ordered the $\frac{1}{4000}$ solution of the biniodide of mercury to be thrown up the vagina four times a day, a few injections readily dissipated the odor On the fifth day the remaining portion of the placenta came away, free from odor The patient was discharged well on the tenth day

Case 8—On March 26, 1886, I was requested to attend Mrs ——, wife of a physician On my arrival at the house found that labor pains had set in about 4 A M Saturday morning, examination showed the os soft and dilating, waters broken, vertex presentation Labor continued throughout the day, and terminated naturally at 10 15 P M, no rupture of the perineum, but the mucous membrane of the vagina, just behind the posterior fourchette, yielded to the extent of half an inch, there was a tendency to post partum hæmorrhage, which was readily checked by compression and the administration of ergot Next day, pulse 92, skin rather hot, natural flow from the vagina On my next visit, Monday, March 22, pulse 130, temperature 103½° pain over the left side of the uterus, the uterus appeared flabby, not having well contracted Same day at 5 o'clock, pulse 130, temperature 104°, discharges from the vagina highly offensive Ordered the vagina to be washed out with a solution of carbolic acid (twenty per cent), ten grains sulphate of quinine morning and night, and twenty drops tincture of digitalis every three hours Midnight, same day, pulse irritable, quick and compressible, pulse 128, temperature 103°, the discharges from the vagina still offensive Next morning, temperature and pulse the same, no change Ordered the $\frac{1}{4000}$ solution of the biniodide of mercury to be thrown up the vagina, and if possible into the uterus, the injections were administered by the husband, and were thoroughly applied On the 24th the condition of the patient seemed improved, temperature 102°, pulse 115–120

On the next morning the husband called at my house and informed me that his wife was in every way worse, the pulse was so irregular that he could not count it, temperature 104°, patient vomited several times, tendency to diarrhœa I asked Dr Goodell to meet me in consultation On arriving at the bedside of the patient, found her in a remarkably good condition, pulse 100, temperature 102°, examination showed a slight laceration of the mucous membrane in the vagina, uterus was contracted, treatment to be continued, with this addition if the case did not get along well To use 10 grain vaginal suppositories of iodoform in conjunction with the biniodide injection These suppositories were not used, as the case from this day did well, with this exception, that on the 27th of March, or the seventh day of confinement, she was allowed to get up and use the night vase This was followed by a severe secondary hæmorrhage, which was checked by hot-water injection and ergot From this time the biniodide was used, the vaginal discharges were free from any offensive odor, and it seemed to have a decided influence on the temperature The patient is still under treatment

We have here eight cases added to the three of my first paper, making in all eleven cases This certainly gives us sufficient data to draw conclusions

The deductions drawn from my early cases are fully sustained by my subsequent experience, and in my mind fully establish the value of the biniodide of mercury as an antiseptic in obstetric practice

In my first series of experiments, to make my solution of the biniodide I took 1¾ grains of the salt, placed it in a mortar, and gradually broke up its particles, after which I slowly added one pint of boiling distilled water This gave me a $\frac{1}{4000}$ solution This took a long time, and often alchohol had to be added to dissolve the mercury

Mr J F Hayes, of St George Pharmacy, conducted a series of experiments for the purpose of placing the biniodide in the hands of the physicians in a convenient and readily soluble form To obtain this end pellets were made of three different strengths In making them sufficient iodide of potassium was added for the purpose, though not enough to cause any chemical change with the biniodide The following is the method pursued in making the pellets Both salts should be perfectly dry The potassium iodide is first placed in a mortar which has been slightly warmed (just enough to take the chill out of it, and thoroughly powdered, the biniodide is then added and well mixed, but not rubbed hard, or the powder will be apt to cake Care must be taken not to compress the pellets too hard, they keep just as well and are more easily dissolved when they are compressed just hard enough to make a firm pill The following is the formula for the pellets

$\frac{1}{4000}$=mercuric iodide $3\frac{21}{25}$ grains, potassium iodide 2 grains Mix as above, and compress in pellet

$\frac{1}{8000}$=mercuric iodide $1\frac{23}{25}$ grains, potassium iodide ¾ grain Mix as above and compress in pellet

$\frac{1}{15000}$=mercuric iodide $1\frac{5}{2500}$ grains, potassium iodide ½ grain Mix as above and compress in pellet

In this form the preparation can easily be carried in the satchel When required for use one pellet is to be added to a quart of hot water (110°) It dissolves easily, and does not stain the clothing or bedding

The strength which I generally use is the $\frac{1}{4000}$ Should it appear too strong the pellet can be cut in half or twice as much water used, thus giving a $\frac{1}{8000}$ strength

221 South Seventeenth Street, Philadelphia

SAN DIEGO VERSUS THE ORDINARY DISEASES

BY C M FENN, A M, M D,

MEMBER OF STATE MEDICAL SOCIETY OF CALIFORNIA

Inquiries concerning this climate in its bearing upon disease are so frequently addressed to the writer by members of the profession and laymen, that I venture to furnish a list of questions and responses For this purpose I avail myself of a series of interrogatories sent to me by some one who is apparently engaged in the collective investigation of diseases (?) The subject may be of increased interest to some by reason of the multitudes of people that are at present coming to this locality from all directions Within a twelvemonth thousands have been added to the population and hundreds of thousands to its material wealth But to the questions

"To what extent and at what seasons have the following diseases prevailed in your section during the years 1884 and 1885?"

Cholera infantum occurs sporadically, if at all The temperature is neither sufficiently elevated nor prolonged to produce the typical disease

Cholera morbus is neither frequent nor influenced by the seasons, owing, doubtless to the constant presence in market of fresh fruits and vegetables However, from some unknown cause it was unusually prevalent from August to October, 1885

Diarrhœa is seldom epidemic During outbreak of cholera in Spain, however, there was a noticeable increase of cases of diarrhœa in this locality

Dysentery occurs sporadically only, and without reference to the seasons

Measles is never extensively epidemic, and not particularly governed by temperature

Scarlatina No epidemics of magnitude during the period mentioned A few cases appeared in the winter of 1884

Diphtheria and *diphtheritic sore throat* have twice prevailed to a limited extent within the time stated Death, when it occurs, from laryngeal complications and blood-poisoning

Croup sometimes prevails during winter months, a predisposition to the disease being an important factor

Erysipelas The phlegmonous type rare, and not prone to complicate surgical operations Erythema, or erythematous erysipelas of more frequent occurrence

Intermittent fever I have never seen an endemic, or indiginous, case of chills and fever here

Remittent fever A mild type is sometimes met with among children during autumn months

Typhoid malarial fever is certainly never endemic, and rarely found here

Typhoid fever is comparatively unknown We have a California typhoid, without the intestinal lesion, a version of Hamlet, so to speak, with the Prince left out

Cerebro spinal fever Sporadic cases have been reported Do not think this climate congenial to it

Phthisis pulmonalis There are always some cases, but they are generally imported Native races are not wholly exempt I have never known a white person to contract it here

Rheumatism Sporadic cases of the acute form occur Chronic rheumatics prefer this to many other coast climates

Pneumonia is never epidemic Occasionally met with in wet seasons

Pleurisy I do not think it of frequent occurrence Intercostal and left-side pains are often mistaken therefor

Bronchitis occurs here chiefly as a sequel, or intercurrent, to other diseases of childhood

Congestion of the lungs may occur sporadically and after unusual exposure Consider it a rare malady

Influenza An epizootic or influenza (?) has twice been epidemic during the last eight or ten years

Catarrhal fever If coryza be implied in the term, we are not wholly exempt during wet seasons Medical treatment is seldom required

Enteritis I have met with two cases during the period named

Peritonitis, idiopathic, Of rare occurrence here

Diseases of the liver Functional disturbances are not uncommon, especially among the unacclimated Organic lesions, except from intemperance, are rarely found

Nephritis, acute idiopathic Not often observed by the physician A deal of "Safe Cure" is consumed by the laity for flatulence, or tapeworm (?)

Heart disease Usually imported Such cases seek climate as well as others

Infantile convulsions Sporadic cases only This is a terrestrial paradise for babies

Puerperal fever I have never had a case in San Diego during a residence of more than twelve years

Of all the ills, affections of the fauces, such as tonsillitis and follicular inflammations, are most prevalent The former usually ends in resolution, and the latter yields readily to judicious treatment

Any one desiring further and especially meteorological data is respectfully referred to my contribution to the last census, made at the request of the department

San Diego, March 10, 1886

ERYSIPELATOUS ECZEMA

BY GEO N MONETTE, M D ,
OF NEW ORLEANS LA

I have observed, during my past year's experience, a great number of cases of an exanthematous eruption, which, from the prodromal phenomena and the subsequent ultimate pathological phenomena, I am compelled to denominate "erysipelatous eczema" As an initiative, a rigor, with features of a pyretic nature, vertigo slight, a tongue slightly coated, with a metallic taste, some pains, arthritic in locality, urine somewhat highly-colored, pulse somewhat excited and full, consonant with the succeeding turgescence of the cutaneous surface

The primary features, naturally, so greatly resembling scarlatina, would lead one to diagnosticate a case of the latter named malady, yet upon close observation, it develops into an acute form of dermatitis There were other features indicating an attack of erysipelas pure, in its primary manifestation, yet there were no bullæ, and no apparent anasarcous condition of the integument, as in erysipelas, but with a vigorously congestive and hypertrophied condition, sometimes corrugated and corded like elephantiasis Itching was an intolerable accompaniment, yet no wheals were present, as in urticaria, no exudative plastic fluid, as in eczema, and no exfoliation as profuse as in eczema chronicus

Dermatitis acutus would be a suitable synonym, yet owing to the characteristic features, I think the compound term more expressive The duration of the malady was from one to three weeks, unlike erysipelas, running its prescribed course within five days, with no unusual developments, as one might apprehend from such an universal congestion, so to speak, of the whole cutaneous surface, with peripheral paresis of neurosal filaments The last case, as I observed it, presented a pachydermatous condition with rugæ and some exfoliative desquamation, disfiguring the face of the old lady considerably Her general health was and had always been good, and there were no extraneous concomitants to arouse any suspicion of infection The features present were identical with those seen previously

Now as to the causes I did observe some years since that several cooks whom I had treated developed *bona fide* eczema of the face, neck and forearm I can recall some of washerwomen who suffered with an eruption on the hands and forearms, yet in these I ascribed the same to the strong chemical and lye soaps used All were amenable to suitable therapeutics In the above cases I could detect no cause, other than hæmato-dyscrasia There were no cases contiguous, no wounds which might have been the media of imbibing or localizing any specific virus

The therapeutics were such as the cases indicated, principally ferruginous tonics, quinine added, and alkaline ablutions to counteract the intolerable itching or pruritus Arsenic was combined with the tonics, also ergotin was given to stimulate proper contractility of the cutaneous vessels One lady, in her incipient development, was annoyed by persistent nausea, which I obviated by a small mercurial with soda I had had a practicing physician boast to me some months prior, that he had quite a number of cases of erysipelas If there was any resemblance at all in the cases, I am sure that my cases were not erysipelas Urticaria has been a frequently recurring ailment in my experience, and has always been susceptible of ready relief I have not had any so severe as to approximate to the subject of this sketch

I feel that the symptoms will sustain me in my denomination of the malady, an erysipelatous eczema, the latter characteristic of red eczema

285 Camp St

INTUBATION OF THE LARYNX

BY L H DUNNING, M D ,
OF SOUTH BEND IND

O'Dwyer's method of intubing the larynx for the cure of membranous croup being under trial, the following history of an unsuccessful case is written in order to swell the list of recorded cases from which, when large enough, we must draw our conclusions as to the efficacy of the method

On March 20 I received a note from Dr J B Green asking me to come immediately to Mishawaka to see a patient of his, and to bring my O'Dwyer instruments On reaching the bedside of the patient I found a child 2½ years old laboring under membranous croup, which had been in progress for eighteen hours There was marked cyanosis, labored breathing and great prostration These conditions had been gradually developing for several hours, and had now reached the point of jeopardizing the life of the child Dr Green and I agreed that unless instrumental means afforded relief death would be the inevitable result of the attack Therefore, in what we deemed the discharge of our duty, we proceeded to intube the larynx

The patient being slightly under size, we selected a tube modeled for a two years' old child The usual method of introducing the tube was observed, and I found little difficulty in properly placing it in the larynx The tube afforded marked relief, and when the thread was removed the relief as evidenced by the patient's appearance was striking She now breathed easily, the cyanosis disappeared, and she passed into a quiet natural sleep After watching the patient for half an hour, and observing that the tube caused but little local irritation, and that the patient continued to breathe and rest easily, we directed that she should take as nourishment only warm milk, and then left her to the care of efficient nurses

March 22, 8 30 A M —Pulse 120, respiration 22 temperature normal Patient had rested well during night Had coughed considerably on taking milk or water, but was breathing easily The skin was of normal hue, and the patient was bright and cheerful, being inclined to notice her playthings

March 22, 12 M —Dr Green reported patient as in a favorable condition No fever, pulse 118 to 124, and respiration 20 per minute

March 23, 4 P M —Saw the patient with Dr Green An entire change had taken place in the condition of the child The tube was yet in position and there was no obstruction to respiration in the larynx, but there were all the physical signs of an intense and widespread broncho pneumonia The attendants attributed the unfavorable change to the imprudence of the father of the child in carrying it from a warm room into a cool one, as two or three hours after the change had been made there were evidences of the development of the lung trouble The child died at 8 P M of broncho pneumonia

The tube was removed a short time before death and found unobstructed The relief afforded during the first two days by the presence of the tube was marked, and it is the opinion of the attending physicians that had not the imprudent act been performed the night of the 22d the child would have made a good recovery

INSTANCES OF TWO OR MORE CASES OF DIABETES MELLITUS IN MEMBERS OF THE SAME FAMILY OR IN NEAR RELATIVES

BY AUSTIN FLINT, M D , LL D ,

PROFESSOR OF PHYSIOLOGY IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE NEW YORK CITY

Number of instances in which complete family histories were obtained, 36

Number of instances in which but one case in a family was noted, 27

Number of instances of two or more cases, 10

No 1 Father–daughter (Both cases observed and recorded)

No 2 Brother–sister (Case of sister only observed and recorded)

No 3 Mother–son (Both cases observed and recorded)

No 4 Paternal uncle–nephew (Case of nephew only observed and recorded)

No 5 Brother–sister (Both cases observed and recorded)

No 6 Two sisters (One case only observed and recorded)

No 7 Two sisters (One case only observed and recorded)

No 8 Two brothers (One case only observed and recorded

No 9 Two brothers (One case only observed and recorded)

No 10 Father, paternal uncle, two sisters, two brothers (One case only observed and recorded)

(Note) Nos 1, 3, and 5 are reckoned each as one instance in the thirty six

14 W 33d St

MEDICAL PROGRESS.

RAPID DILATATION OF THE CERVIX UTERI FOR DYSMENORRHŒA AND STERILITY —DR A H GOELET of New York, in a paper on this subject, says

The proper time for dilatation, is from one week to ten days after the cessation of the menstrual flow Much can be accomplished by preparatory treatment, in relieving the rigidity and congestion of the parts, by using every second day for a week previous to the operation, a tampon saturated with either glycerine or boroglyceride A string being attached, it is removed by the patient in twenty four hours, and the vagina thoroughly irrigated with hot water

The instrument preferred is the Palmer dilator, modified in the following way, viz The blades are made thicker near the shoulder, and the outer surfaces flatter, to lessen the risk of injuring the cervical mucous membrane, and to prevent too much spring, and the shoulder is made more abrupt The amount of separation of the blades is one inch, at a point corresponding with the internal os, when the instrument is in position For greater convenience, the thumb screw attached to the handles has been transferred to the left side

The operation is thus performed The patient having been anæsthetized and placed on a table in a good light, with the second assistant, who may be a nurse, standing to the right of the patient (left of the operator), the speculum is introduced and the cervix exposed to view Ordinarily the position on the back with a bivalve or trivalve speculum will answer every purpose, but for cases where much flexion exists the Sims's position and speculum are required Unless it has been previously done, the sound is introduced first to ascertain the direction of the canal Then, fixing the cervix, and drawing it down slightly with a tenaculum in the left hand, the dilator, held in the right, is introduced through the external os without much difficulty, but its progress is arrested at the internal os, where the obstruction generally exists But steady, firm pressure exerted in the proper direction will usually overcome the obstruction, and the beak of the instrument jumps suddenly through the internal os The shoulder on the blades limits the amount of penetration and prevents injury to the fundus Where steady and firm, but gentle, pressure does not overcome the obstruction, I prefer to withdraw the instrument and pass successively applicators wrapped tightly with cotton, increasing the size until the dilator can be introduced without force Harsh means cannot be too strongly condemned I have never found it necessary to bore the external os with a pair of pointed scissors, and consider it a harsh and unnecessary procedure Should an exceptional case present in which it was impossible to pass the probe, I should introduce a small laminaria tent and wait

When the blades have been introduced as far as the shoulder, the handles are gradually brought together, the thumb screw being made to follow along and hold the advantage gained when the hand becomes tired, or the dilatation may be done with the screw alone The amount of dilatation is usually the full extent of the instrument (one inch), but this depends upon the case After a few moments the screw is loosened and the instrument is withdrawn The canal is then cleansed of mucus by means of applicators wrapped with absorbent cotton, and a hard rubber bougie (Hawk's), No 13 American scale (20 French), is gently passed, followed by successive sizes up to 18 if the case require it After this, an applicator armed with cotton and dipped in liquid carbolic acid is passed through the cervical canal A tampon of absorbent cotton saturated with the boroglyceride, fifty per cent with glycerine, is placed against the cervix and the patient is transferred to the bed to recover slowly from the anæsthetic Besides possessing antiseptic properties, the boroglyceride depletes the tissues and relieves irritation

The stem used in the after treatment is of hard rubber two inches long and slightly curved, having a cup-shaped shoulder which hugs the cervix and remains in position better than the glass stem I formerly used It is tunnelled or perforated through the centre to allow drainage There are three sizes, 10, 12, and 14 English, corresponding with sizes 13, 15, and 17 of the American scale Its introduction is best accomplished by means of the sponge tent applicator, the end of which is made to fit in the perforation By using this the stem can be introduced very nearly straight, even when there is considerable flexion The curve in the instrument takes the place of the curve in the stem and allows the point of the stem to pass the angle in the canal with greater ease By seizing the cervix on the side with a tenaculum, and pressing the stem firmly into the canal, carrying the handle of the instrument well back toward the perineum, its introduction is facilitated In retroflexion the movement is reversed

On the day following the operation the tampon is removed, the canal cleansed of mucus, and the hard rubber dilators are again passed, after which the stem is introduced as described above and held in position by a similar tampon of cotton soaked with the boroglyceride This is repeated every day, the stem being removed, cleansed, and replaced After a week of this treatment, during which time the patient is confined to her bed, the stem is removed permanently and she is allowed to get up In some instances the stem is introduced curved at first, and after the uterus has become accustomed to its presence it is straightened

The conclusions arrived at are

First That rapid dilatation is a perfectly safe, justifiable, and satisfactory procedure, free from the dangers which frequently follow the cutting operations, especially the occurrence of cicatricial contraction

Second If the stem be used in the after-treatment, recontraction does not occur, and the operation does not require repetition

Third The operation is demanded by the following conditions viz, (1) Marked stenosis with or without flexion (2) Acute flexion without actual stenosis, the obstruction existing only coincident with menstruation (3) Slight stenosis as shown by the passage of the sound, dysmenorrhœa and sterility existing without other cause (4) Mild endometritis from acquired narrowing of the cervical canal and lack of free drainage for the discharges —*Medical News*, April 3, 1886

Inhalations of Cold Air in Typhoid Fever — Dr Alexander M Sokoloff, searching for some means of intensifying the antipyretic action of cold air, resolved upon undertaking a series of experiments on inhalation—that is, on introducing this cooling agent into the lungs, into "one of the regions of maximal heat-formation" His observations were made in twenty-three cases of enteric fever, five of which were of an abortive type, the remaining eighteen being moderately or very severe (two ended fatally) The patients were made to inhale from a Niemeyer's cold air inhaler (*see* P Niemeyer's *Aertzl Spretchs*, vol vi, part 3, p 129), slightly modified by the author About 510 inhalations were made in twenty-three cases, the number of sittings in an individual case varying from six to forty-two, the number of sittings daily from one to three, the duration of a sitting from five to thirty minutes, and the temperature of the air from -2° to 10° R From these observations the author draws the following conclusions

1 Inhalations of cold air produce a greater or less depression of febrile temperature, but, contrary to the author's expectations, their effect is comparatively weaker and more fleeting than that of cold water baths, and even of cold air baths The antipyretic effect of the inhalations varies according to certain conditions (*a*) *The time of the day* The least decrease of the febrile temperature, varying from 0° 2 to 0° 5 C, is observed when the inhalations are made between noon and 6 P M The strongest effect, varying from 0° 5 to 1° 3 C (after a single sitting), is observed between 7 P M and 10 P M (*b*) *The stage of the disease* The slightest and shortest effects are observed during the two first weeks of enteric fever, when the average daily decrease (after several sittings) falls short of 1° C, and when the effect of an individual sitting does not last longer than one and one-half to two hours During the next weeks of the disease the effects are stronger (often 1° C, after a sitting), and last several hours (*c*) *The duration of the inhalation* is but of slight importance A sitting of five to ten minutes' duration gives the same decrease of the febrile temperature as a sitting of twenty minutes' duration [The author attempts to explain this rather strange circumstance by fatigue of the lungs, in consequence of which the patient makes accelerated and superficial respiratory movements] At all events, the greatest antipyretic effects are obtained from sittings of twelve to fifteen minutes' duration (*d*) *The temperature of the air inhaled* A temperature of -2° or -3° R gives almost the same decrease of the febrile temperature as the temperature of -4°, -5°, or -6° R Relatively stronger effects are obtained from temperatures of -8°, -9°, -10° R. [It would seem natural to expect *a priori* that the antipyretic effect ought to be greater, the lower is the temperature inhaled It proved, however, otherwise The relatively small effect of lower temperatures is attributed by the author to a comparatively shorter duration of the sittings, the patients being unable to

perform prolonged inhalations on account of unbearable toothache occurring in consequence of intense cooling of the mouth and teeth] (*e*) *The mental state of the patient* Both depression and excitement (often observed in typhus patients) diminish or even entirely suppress the antipyretic effect of the inhalations

2 The inhalations produce retardation of respiration (in average, four a minute) and pulse (in average, six beats a minute) At the same time, breathing becomes deeper, and the pulse fuller

3 The inhalations relieve dryness of the mucous membranes and skin

4 Inhalations of cold air promote resolution of the bronchitis which often complicates enteric fever, and increase the process of ventilation in the lungs

5 Hence the inhalations lead to an improvement in the patient's general state, sleep, and appetite

6 Inhalations of cold air act antiphlogistically on the inflamed respiratory tracts, and hence may be employed as a rational therapeutic agent in the treatment of pulmonary inflammation

7 Systematic inhalations of cold air may prove of use also in chronic bronchitis, asthma, and emphysema

[In the *Meditzinskoie Obozrenie*, No 13, 1884, p 12, Dr V F Sprimon points to the disadvantage of the use of the cumbrous and heavy Niemeyer's inhaler, and advises a trial, in winter time, of inhalations of cold air conduced from a window through a piece of tubing, the patient inhaling the air by means of a mouthpiece from a Waldenburg's apparatus In the *Vratch*, No 14, 1884, p 242, Professor V A Manassein points out that Sokoloff's observations are important as a new illustration of the fact that cool air in itself is harmless to the febrile patient, and that the well known fears entertained as yet by the public at large, and even by medical men, in regard to "chilling the patient" are entirely groundless Like Sprimon, Manassein also finds any special cooling apparatus superfluous Valuable information is collected in Dr R Neale's *Medical Digest*, sect 257 2 —*Rep*]—*London Medical Record*, March 15, 1886

EXPERIMENTAL TRANSFUSION —It is now generally recognized that many of the conditions in which the operation of transfusion of blood has been regarded as essential, may be successfully treated in other ways Thus it is admitted that the collapse following severe hæmorrhage is due not to a loss of blood *per se*, but to a purely quantitive loss of fluid vascular contents —a loss which may be supplied by the intravenous injection of salt solution Nevertheless, in spite of its dangers, occasions arise in which transfusion is indicated, and in view of the growing disfavor with which the operation is now regarded, much interest attaches to some recent experiments of Bizzozero and Sanquirico, recorded in the ninth volume of the *Arch per le Scienza Med*

In the dogs which were the subjects of these experiments, both the numerical proportion of the red corpuscles and the percentage of hæmoglobin were first ascertained Blood in varying amounts was then withdrawn, and an equal quantity of defibrinated dog's blood transfused by the jugular vein In periods of from fifteen minutes to eighteen days the blood of animals thus operated upon was investigated, and the results compared with those of the preliminary examination In a second series of experiments, one-half of the total blood of the animals was withdrawn, defibrinated, filtered through linen and returned to the veins of the animals from which it was taken This procedure was ten times repeated, so that each corpuscle of the animal was subjected approximately five times to this rough handling Before and after this series of experiments the same close examination of the quantitative relations of corpuscles and hæmoglobin was instituted, with the result of showing that in no case, in either series was a noteworthy effect produced

These observations lead to the conclusion that not only is the red corpuscle remarkably resistant to rough treatment, but that the transfusion of the defibrinated blood of animals of the same species is not injurious —*Medical News*, April 3, 1886

PHYSIOLOGICAL ACTION OF ANTIPYRIN AND KAIRIN —DR S J PAVLINOFF describes the results of some experiments as to the chemical and physiological properties of antipyrin and kairin

Chemical Properties —[The preparation of antipyrin was obtained from Ferrein, and presented an amorphous yellowish powder of pretty strong bitter taste, with aromatic flavor It was soluble in water and ether, the solutions were neutral] Kairin belongs to light oxydizable substances, its solutions, kept in contact with the air, within twelve hours become of a ruby color, and in a few days rich dark cherry red On the other hand, solutions of antipyrin remain unchanged (that is, either colorless or yellowish) for a month, or even longer Being treated by nitric acid, kairin solutions turn to dark cherry-red, and, on being subsequently diluted, they gradually become yellow, the latter coloration occurring still even when only 0 001 per cent of the drug is present Antipyrin gives no reaction with the acid But both kairin and antipyrin solutions assume a claret red color on being treated by perchloride of iron ($Fe_2 Cl_6$)

Physiological Action —A *Blood* —As Morokhovetz showed (see the *London Medical Record*, October, 1884, p 421), when mixed with an equal volume of a 0 001 per cent solution of kairin, the blood assumes a claret red color, and gives the methæmoglobin bands on the spectroscopic examination The red blood corpuscles take a cup-like form and brownish color But antipyrin remains entirely inactive, even when a 1 per cent solution is employed The same difference between the two substances is observed, also, when intravenous injections of their solutions in dogs are undertaken B *Blood pressure* —Antipyrin induces an increase of the arterial tension, while the latter is rapidly and very considerably lowered by kairin (after a fleeting initial rise) C *Pulse*—Under antipyrin, the pulse becomes somewhat retarded, but its rhythm remains regular, while under kairin it quickens and assumes a filiform character Some experiments seem to point out that kairin affects the cardiac muscle, the cardiac nerve-apparatus remaining intact On the contrary, antipyrin appears to act on the latter, and to leave intact the former *Respiration* —Antipyrin produces a very considerable quickening of the respiration, the type of which, however, remains uniform all through On the other hand, kairin brings about interrupted or irregular breathing [Therefore, as far as circulation and respiration are concerned, kairin and antipyrin are endowed with diametrically opposite actions] E *Salivary Glands* —Both of the drugs augment the secretion of saliva, antipyrin may be detected after a while in the latter, though in small quantities F *Pancreas* —Neither antipyrin nor kairin has any influence on the secretion of pancreatic juice G *Liver* —Kairin increases the secretion of bile, the color of which gradually turns to black, while antipyrin remains entirely inactive H *Kidneys* —Neither of the drugs manifests any action on the quantity of urine But the first portions of urine voided after the introduction of antipyrin contain a considerable quantity of the drug [Therefore, antipyrin is eliminated from the system through the kidneys and salivary glands] I *Motor Nerves* Dr Pavlinoff confirms the statement of Morokhovetz that kairin, like curare, affects the intramuscular endings of the motor nerves (in frogs), the drug acts antagonistically to strychnine (as Professor F P Sheremetevsky supposed) Nothing of the kind is noted as regards antipyrin J *Reflex Action* —Antipyrin increases the reflex action (as Professor Demme, of Berne, first proved) K *Temperature* Antipyrin depresses the normal temperature, but not at any uniform rate, the latter varying from 0° 5 to 2° C and more, generally speaking, the depression is the more marked, the shorter are the intervals between the doses administered Under kairin, the temperature sinks in consequence of the drug absorbing oxygen of the blood, hence, the use of karin in cases of pneumonia, chronic pulmonary disease, anæmia, cardiac disease, etc, is fraught with obvious and immediate danger In all such cases, antipyrin may be safely and effectively administered, the drug being indifferent in its chemical behavior towards the blood, and if anything, strengthening the cardiac action —*London Medical Record*, March 15, 1886 -

Decoction of Lemons in Intermittent Fever —Having reviewed the literature of the subject (Maglieri, Stephens, Toropoff, Tommasi Crudeli, Dominico Azzillo, Norman Forbes, Lauchlan Aitken, Putokhin), Dr Nikolai N Maslenikoff proceeds (*Kavkazsky Meditz Sbornik*, vol 39, Fasc ii, 1885, p 29) to describe his own observations on twenty cases of intermittent fever, treated by decoction of lemons in the Military Hospital in Temir Khan Shura Dagestan region Seven of the patients were affected by the fever for the first time, three for a second, the remaining had passed previously through several malarial attacks In thirteen of twenty cases a quotidian, and in seven a tertian, variety was present In sixteen cases the spleen was found to be enlarged and painful (in fourteen, both during the paroxysms and the intervals) The decoction was prepared after Maglieri's method, that is, every evening a whole fresh lemon was cut into very thin slices, put into eighteen ounces of distilled water in an earthen pot, and boiled (for two hours) until six ounces of decoction remained On the next morning the liquid was forcibly strained through a piece of gauze, and then given to the patient to take immediately at several gulps The decoction was used in that way for ten or fourteen successive days In none of the patients did any gastric disturbances occur The results obtained by Dr Maslennikoff were not so successful as those by Dr Putokhin In only six cases, four of which were of quotidian fever and two of tertian, a cessation of paroxysms ensued In two of the remaining patients, the paroxysms became less severe, and in three the type of fever underwent a change In none did any alterations in size of the spleen take place All cases where decoction of lemons had failed were subsequently, mostly very rapidly, cured by quinine The general conclusion reached by the author is that, as far as severe Caucasian fevers are concerned, decoction of lemons has, except its agreeable taste and harmlessness, no advantages whatever over other substitutes for quinine —*London Medical Record*, March 15 1886

Hepatic Origin of Urea —Dr D W Aitken, describes, in the *British Medical Journal* of February 6, 1886, the following interesting case, the direct bearing of which upon the question of the source of urea is evident

Early this month (January) I was called to see a boy who had the day previous received a rather severe blow upon the right lobe of the liver When seen he was complaining of much pain in the right hypochondrium The skin was slightly, and the conjunctiva distinctly jaundiced The stools were pale, while the urine was bile colored, and gave the bile reaction with nitric acid, there was no fever But herein lies the important matter The urine was highly alkaline On the addition of nitric acid there was such violent effervescence that the froth was forced out of the test-tube, although the urine was not much more than one inch deep I got my friend, Dr Drinkwater, to examine the urine carefully He reports that the alkalinity was due to ammonium carbonate, and, on estimating the urea, he found only three per cent

This evidence seems to point strongly to the liver as the seat of production of urea Dr Graves has already reported several cases of absence of urea which he believed to be represented in the urine by the ammonium carbonate, but here we have a history of the organ involved — *Medical News*, April 3, 1886

A Micro organism in the Tissues of Heredito-syphilitic Children —Kassowitz and Hochsinger have found micro organisms constantly in five syphilitic children, occurring in the skin in pemphigus, in the liver, and in bone tissue They are streptococci, arranged in chains The authors have never found Lustgarten's bacilli The micro organisms found occurred in the fine capillaries —*St Petersb Med Woch*, No 11, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order, drawn to the order of the under signed When neither is accessible, remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY, APRIL 17, 1886

IN WHAT PLACES SHOULD THE ANNUAL MEETINGS OF THE AMERICAN MEDICAL ASSOCIATION BE HELD, AND WHAT ARE THE NECESSARY LOCAL EXPENSES CONNECTED WITH SUCH MEETINGS?

These are questions of sufficient importance to demand more attention than they have hitherto received To prevent the membership and the influence of the Association becoming too much restricted within narrow limits, and to secure the stimulating influence of these meetings upon the formation and support of State and local societies in all parts of the country, a constitutional provision was adopted prohibiting the holding of two annual meetings in succession in the same place Consequently the general policy has been to have the annual meetings alternate from one section of the country to another, depending much upon such invitations as might be extended by the local profession in different cities While the leading objects sought to be accomplished by holding the meetings in different parts of the country were actually attained, and the social organization of the profession in the different States was rapidly advanced, some evils were developed which have never been obviated

It was found that the income of the Association was made to depend much upon the size and location of the city in which the meetings were held When a meeting was held in any of the great cities surrounded by States in which the profession was well organized, the number in attendance was large, and the income from the payment of membership dues was correspondingly large, but when the meeting occurred in a smaller city, or even in a large city not surrounded by populous States in which the profession was well organized, the number was small and the income small For although the annual membership fee was due from all permanent members whether attending the annual meetings or not, yet the Treasurer's reports show that comparatively little was actually paid except at these meetings While the Transactions of the Association were published in a single volume yearly and distributed from six to nine months after each meeting, the amount actually collected from permanent members not at the meetings was so small that the number losing their membership from non-payment of their dues came to be nearly equal to the annual addition of new members

Since, instead of one annual volume, each member receives a valuable medical journal each week, the financial evils just mentioned have greatly lessened and the annual income from membership dues has doubled And yet so apparent are the advantages of a meeting in a large city in the centre of populous States and well organized State Societies, both in securing the addition of new members and larger revenues, that careful attention should be given to the subject by each nominating committee Another evil of greater magnitude developed early and increased rapidly in connection with the practice of meeting successively in different sections and on direct invitations from the profession of different cities in which the meetings were held Naturally, when the profession of a city extended an invitation to the Association to hold the next annual meeting there, they assumed the responsibility of furnishing all necessary accommodations for the meeting at their own expense, as well as the additional expense of what hospitalities in the way of banquets, entertainments, etc , might be provided

At the first two or three annual meetings the hospitalities were cordial, but of a private or individual character But at the third annual meeting, which was held at Boston, in 1849, one evening was set apart for a general social melee or promenade in a public hall for the laudable purpose of affording more direct social intercourse of members from all parts of the country With genuine good taste the local committee provided no other refreshments than coffee, simple cakes and fruit, on a side table where any one who wished could partake when they pleased But this simple and very pleasant example was quickly converted into the form of a "public banquet" which each subsequent local Committee of Arrangements endeavored to make more *magnificent and costly* than their predecessors, until at New York, in 1853, the banquet alone was said to have cost more than the latter, and to leave intact the former *Respiration*—Antipyrin produces a very considerable quickening of the respiration, the type of which, however, remains uniform all through On the other hand, kairin brings about interrupted or irregular breathing [Therefore, as far as circulation and respiration are concerned, kairin and antipyrin are endowed with diametrically opposite actions] E *Salivary Glands*—Both of the drugs augment the secretion of saliva, antipyrin may be detected after a while in the latter, though in small quantities F *Pancreas*—Neither antipyrin nor kairin has any influence on the secretion of pancreatic juice G *Liver*—Kairin increases the secretion of bile, the color of which gradually turns to black, while antipyrin remains entirely inactive H *Kidneys*—Neither of the drugs manifests any action on the quantity of urine But the first portions of urine voided after the introduction of antipyrin contain a considerable quantity of the drug [Therefore, antipyrin is eliminated from the system through the kidneys and salivary glands] I *Motor Nerves* Dr Pavlinoff confirms the statement of Morokhovetz that kairin, like curare, affects the intramuscular endings of the motor nerves (in frogs), the drug acts antagonistically to strychnine (as Professor F P Sheremetevsky supposed) Nothing of the kind is noted as regards antipyrin J *Reflex Action*—Antipyrin increases the reflex action (as Professor Demme, of Berne, first proved) K *Temperature* Antipyrin depresses the normal temperature, but not at any uniform rate, the latter varying from 0° 5 to 2° C and more, generally speaking, the depression is the more marked, the shorter are the intervals between the doses administered Under kairin, the temperature sinks in consequence of the drug absorbing oxygen of the blood, hence, the use of kairin in cases of pneumonia, chronic pulmonary disease, anæmia, cardiac disease, etc, is fraught with obvious and immediate danger In all such cases, antipyrin may be safely and effectively administered, the drug being indifferent in its chemical behavior towards the blood and if anything, strengthening the cardiac action —*London Medical Record*, March 15, 1886

DECOCTION OF LEMONS IN INTERMITTENT FEVER —Having reviewed the literature of the subject (Maglieri, Stephens, Toropoff, Tommasi Crudeli, Domenico Azzillo, Norman Forbes, Lauchlan Aitken, Putokhin), DR NIKOLAI N MASLENIKOFF proceeds (*Kavkazsly Meditz Sbornil*, vol 39, Fasc 11, 1885, p 29) to describe his own observations on twenty cases of intermittent fever, treated by decoction of lemons in the Military Hospital in Temir Khan Shura Dagestan region Seven of the patients were affected by the fever for the first time, three for a second, the remaining had passed previously through several malarial attacks In thirteen of twenty cases a quotidian, and in seven a tertian, variety was present In sixteen cases the spleen was found to be enlarged and painful (in fourteen, both during the paroxysms and the intervals) The decoction was prepared after Maglieri's method, that is, every evening a whole fresh lemon was cut into very thin slices, put into eighteen ounces of distilled water in an earthen pot, and boiled (for two hours) until six ounces of decoction remained On the next morning the liquid was forcibly strained through a piece of gauze, and then given to the patient to take immediately at several gulps The decoction was used in that way for ten or fourteen successive days In none of the patients did any gastric disturbances occur The results obtained by Dr Maslennikoff were not so successful as those by Dr Putokhin In only six cases, four of which were of quotidian fever and two of tertian, a cessation of paroxysms ensued In two of the remaining patients, the paroxysms became less severe, and in three the type of fever underwent a change In none did any alterations in size of the spleen take place All cases where decoction of lemons had failed were subsequently, mostly very rapidly, cured by quinine The general conclusion reached by the author is that, as far as severe Caucasian fevers are concerned, decoction of lemons has, except its agreeable taste and harmlessness, no advantages whatever over other substitutes for quinine —*London Medical Record*, March 15 1886

HEPATIC ORIGIN OF UREA —DR D W AITKEN, describes, in the *British Medical Journal* of February 6, 1886, the following interesting case, the direct bearing of which upon the question of the source of urea is evident

Early this month (January) I was called to see a boy who had the day previous received a rather severe blow upon the right lobe of the liver When seen he was complaining of much pain in the right hypochondrium The skin was slightly, and the conjunctiva distinctly jaundiced The stools were pale, while the urine was bile colored, and gave the bile reaction with nitric acid, there was no fever But herein lies the important matter The urine was highly alkaline On the addition of nitric acid there was such violent effervescence that the froth was forced out of the test-tube, although the urine was not much more than one inch deep I got my friend, Dr Drinkwater, to examine the urine carefully He reports that the alkalinity was due to ammonium carbonate, and, on estimating the urea, he found only three per cent

This evidence seems to point strongly to the liver as the seat of production of urea Dr Graves has already reported several cases of absence of urea which he believed to be represented in the urine by the ammonium carbonate, but here we have a history of the organ involved —*Medical News*, April 3, 1886

A MICRO ORGANISM IN THE TISSUES OF HEREDITO-SYPHILITIC CHILDREN —KASSOWITZ and HOCHSINGER have found micro organisms constantly in five syphilitic children, occurring in the skin in pemphigus, in the liver, and in bone tissue They are streptococci, arranged in chains The authors have never found Lustgarten's bacilli The micro organisms found occurred in the fine capillaries —*St Petersb Med Woch*, No 11, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY, APRIL 17, 1886

IN WHAT PLACES SHOULD THE ANNUAL MEETINGS OF THE AMERICAN MEDICAL ASSOCIATION BE HELD, AND WHAT ARE THE NECESSARY LOCAL EXPENSES CONNECTED WITH SUCH MEETINGS?

These are questions of sufficient importance to demand more attention than they have hitherto received. To prevent the membership and the influence of the Association becoming too much restricted within narrow limits, and to secure the stimulating influence of these meetings upon the formation and support of State and local societies in all parts of the country, a constitutional provision was adopted prohibiting the holding of two annual meetings in succession in the same place. Consequently the general policy has been to have the annual meetings alternate from one section of the country to another, depending much upon such invitations as might be extended by the local profession in different cities. While the leading objects sought to be accomplished by holding the meetings in different parts of the country were actually attained, and the social organization of the profession in the different States was rapidly advanced, some evils were developed which have never been obviated.

It was found that the income of the Association was made to depend much upon the size and location of the city in which the meetings were held. When a meeting was held in any of the great cities surrounded by States in which the profession was well organized, the number in attendance was large, and the income from the payment of membership dues was correspondingly large, but when the meeting occurred in a smaller city, or even in a large city not surrounded by populous States in which the profession was well organized, the number was small and the income small. For although the annual membership fee was due from all permanent members whether attending the annual meetings or not, yet the Treasurer's reports show that comparatively little was actually paid except at these meetings. While the Transactions of the Association were published in a single volume yearly and distributed from six to nine months after each meeting, the amount actually collected from permanent members not at the meetings was so small that the number losing their membership from non-payment of their dues came to be nearly equal to the annual addition of new members.

Since, instead of one annual volume, each member receives a valuable medical journal each week, the financial evils just mentioned have greatly lessened and the annual income from membership dues has doubled. And yet so apparent are the advantages of a meeting in a large city in the centre of populous States and well organized State Societies, both in securing the addition of new members and larger revenues, that careful attention should be given to the subject by each nominating committee. Another evil of greater magnitude developed early and increased rapidly in connection with the practice of meeting successively in different sections and on direct invitations from the profession of different cities in which the meetings were held. Naturally, when the profession of a city extended an invitation to the Association to hold the next annual meeting there, they assumed the responsibility of furnishing all necessary accommodations for the meeting at their own expense, as well as the additional expense of what hospitalities in the way of banquets, entertainments, etc., might be provided.

At the first two or three annual meetings the hospitalities were cordial, but of a private or individual character. But at the third annual meeting, which was held at Boston, in 1849, one evening was set apart for a general social melee or promenade in a public hall for the laudable purpose of affording more direct social intercourse of members from all parts of the country. With genuine good taste the local committee provided no other refreshments than coffee, simple cakes and fruit, on a side table where any one who wished could partake when they pleased. But this simple and very pleasant example was quickly converted into the form of a "public banquet" which each subsequent local Committee of Arrangements endeavored to make more magnificent and costly than their predecessors, until at New York, in 1853, the banquet alone was said to have cost more than

$10,000, and the next year at St. Louis its extravagance and the excesses accompanying it, led to the adoption of a resolution offered by the late Professor S. D. Gross, forbidding all subsequent Committees of Arrangements to provide any public banquet in connection with the annual meetings of the Association. This checked the evil in that direction, and still the rule was often evaded by accepting banquets tendered in the name of the citizens instead of the local profession, and costly entertainments and private receptions multiplied, not only sufficient to constitute a heavy tax upon the local profession, but also to so completely occupy all the time intervening between the necessary sessions of the Association and the Sections, as to leave hardly an hour for special committees to do any work that might be assigned to them, or for fatigued members to obtain a much needed rest.

It was to still further lessen these evils, that in 1867 a rule was adopted that each alternate annual meeting should be in Washington, the Capital of the country, and the strictly necessary expenses for rooms to accommodate both the general sessions and the Sections, and the printing of programmes for all future meetings, should be paid from the treasury of the Association, thus relieving the local profession from all strictly necessary expenses for the annual meetings. Nevertheless, wherever an invitation has been accepted to meet in any city, the parties giving the invitation have continued the practice of filling every evening with an excess of expensive entertainments or receptions, and sometimes crowding excursions into a part of the last day of the meeting. We think the time has come when reliance upon invitations to meet in one city or another should be abandoned and the selections should be made with reference to securing the largest increase in the membership, and as far as possible strengthening the State and local organizations in all parts of the country. Inasmuch as the Association pays for all the necessary accommodations and printing for each meeting, there should be no direct or implied money tax on the local profession at the place of meeting, but only the services of an efficient Committee of Arrangements. In all the great cities there are wealthy citizens both in and out of the profession who would deem it a pleasure to give receptions enough to occupy one evening, and if any considerable number of the members of the Association desire a social dinner or banquet, it should be provided at their own expense and under their own supervision, as is the case in the British Medical Association and in similar organizations in other countries.

MOOT POINTS IN SYPHILIS.

When, a few months ago, it was announced that MR. JONATHAN HUTCHINSON, the Lettsomian Lecturer of the Medical Society of London, for 1886, would lecture on "Some Moot Points in the Natural History of Syphilis," dermatologists, syphilographers and surgeons generally were on the *qui vive* to see how the subject would be treated by the generally acknowledged master pathologist and surgeon. American surgeons and dualists were quite prepared for an opening shot at dualism, but few, we think, were prepared to read the following: "A dualist is, I suppose, one who holds that there exist two quite distinct and independent cartagia, one of which produces a non-infecting sore, and the other syphilis." Under the circumstances of place and subject it seems that the lecturer should at least have been entirely familiar with the ground of the "the opposition," the more especially since in the next breath he begins to discuss the question at issue.

Beginning with a series of hypotheses, and a play upon words as to the difference between "specific contagium and specialized contagium," the lecturer built up a very pretty argument in favor of unicity—but one in which the facts of Basserau, Diday, Rollet, Fournier, Coby, Ricord and, not to make the list too long, Pick, Kraus, Reder, Henry Lee and Morgan (quoted by Mr. Hutchinson in support of unicity), Wigglesworth and R. W. Taylor are to all appearances utterly ignored. Equally surprising is the fact that so good a pathologist and so close a student seemingly forgets the pathological differences between the chancre and the chancroid. Can it be that the "specific contagium" of the one produces cell proliferation, while the "specialized contagium" of the other causes distinctive metamorphosis? In the face of the mass of evidence to the contrary Mr. Hutchinson says: "So far as I can see, all *a priori* probability favors the suggestion that non-indurated sores are produced by the secretion of true chancres, which have been changed in character either by the inflammatory process, or by the non-susceptibility of the tissues of the recipient." In that portion of his first lecture in which he discusses this question the only names mentioned are those of Danielson, Lee, Morgan, Gascoyen and Bidencap. The conclusion of Baumler that "the chancroidal poison cannot even be compared with the syphilitic poison, to say nothing of regarding them as identical," appears to have escaped notice.

Few surgeons in this country or on the Continent, we think, will agree that "scars in the groin are presumptive evidence of syphilis." We must know how the patient was treated for the sore which preceded the bubo, and whether, as is sometimes the case with chancroidal buboes, the glandular trouble appeared after the primary sore disappeared But apart from this Mr Hutchinson is certainly at variance with authorities in holding this view The best authorities are agreed that the syphilitic bubo usually terminates by resolution, while the chancroidal is inclined to suppuration There is, therefore nothing remarkable in Mr Hutchinson's experience of having never seen a suppurated bubo in the armpit in association with chancre of the finger We neither see anything remarkable in this fact, nor can we agree with him that it indicates that the "soft sore but rarely causes bubo"—an inference which he draws If it be his observation that "it is not very exceptional for the typical chancroid to cause no enlargement of the glands at all" his experience must be exceptional, and broad general deductions should not be drawn from such an experience With such views as to the nature and pathology of the chancroid we are prepared for an announcement that phagadæna is as frequent a sequence of chancre as of chancroid, but scarcely for the sweeping statement that "all will admit that syphilitic inflammations have a remarkable tendency to become phagodænic," unless the chancroid be classed as a syphilitic inflammation Nevertheless, within a page of the statement just quoted he says that it is a question whether the infecting or the non infecting sore is the more liable to phagadæna

We can agree with the lecturer that too much importance has been attached to induration of the chancre as a symptom of syphilis Induration may be entirely absent, or it may vary widely in degree and duration Chancrous induration is not altogether so common, in the opinion of the best authorities, as glandular induration Mr Hutchinson thinks, however, that we must therefore come to the conclusion that "syphilis can begin without any induration whatever" He does not think it very probable that an intra urethral chancre may occur without pain, without signs of obstruction, and without external induration or discharge, but this is certainly as probable, if not more so, than that syphilis can be introduced into the system without any abrasion In connection with such cases he refers to those in which a patient has a urethral discharge, simulating gonorrhœa, or gonorrhœa itself, and in which syphilis, without the detection of a chancre, follows We cannot believe that there is any good reason for terming such cases "gonorrhœa-syphilis" because the affections are at first coincident It should be remembered that the urethral discharge is by no means necessarily gonorrhœal In a case of true gonorrhœa, as Mr Hutchinson suggests, the acute urethral inflammation may act in preventing the local adhesive inflammation of the chancroid, and this is a much more tenable hypothesis than that the syphilitic virus is absorbed directly, without any sore at all

We may pass over the remarks on rupia and psoriasis palmaris, syphilitic lupus, periostitis and other symptoms commonly classed as tertiary, but which are not strictly confined to that period, and notice what the lecturer has to say of the influence of mercury as antidote His remarks on this subject should be read by every one who is partial to large doses of this drug in the treatment of syphilis Indeed, since we know that small doses of mercury increase the number of red blood corpuscles, and that large doses diminish the number, it seems strange that anyone should now advocate or administer large doses Recent experience, says Mr Hutchinson, has much strengthened the claim of mercury to rank as an antidote to the virus of syphilis, and the fact is "one of extreme importance in reference to a very important department of general pathology and therapeutics In connection with it we may suitably bear in mind the great repute which weak solutions of corrosive sublimate have recently obtained in the prevention of septic processes" The form of mercury which he has used almost exclusively is the gray powder, in one grain doses, from three to six times in twenty-four hours, and seldom for a shorter time than six months in the first instance "If this dose be given to a patient with an indurated sore, but in whom, as yet, no secondary symptoms have appeared, the result will usually be that none will occur" Neither the preparation of mercury used nor the time of giving it will be endorsed, we think, by the majority of syphilographers, The weight of authority is certainly against the administration of the drug before the appearance of constitutional symptoms (save in exceptional cases) Otherwise it is entirely probable that a patient may take it for some months, and have much mental anxiety, when he has only had a chancroid He admits that the grey powder is the "most convenient" form, but syphilis is a disease in which we cannot always consult our convenience The evidence seems entirely sufficient to show that the course of a case is not affected by delaying the mercurial treatment until constitutional symptoms appear

The third lecture is devoted entirely to questions concerning the inheritance of syphilis, and it is in this particular field that Mr Hutchinson has done some most excellent work The points discussed in the lecture are as to transmission to many children in succession, the supposed connection between syphilis and rickets, ulcers of the palate and pharynx in young persons, malformation of joints in consequence of infantile syphilitic periostitis, ringworm of the tongue, possibly sometimes connected with hereditary syphilis, chronic skin diseases due to hereditary syphilis, diseases of the nervous system, and idiocy in connection with inherited syphilis As already stated, his work in the way of elucidating problems in hereditary syphilis is monumental, as may be seen in the almost unparalleled article on "Hereditary Syphilis," by Dr J William White, in Pepper's "System of American Medicine " We could wish that much more time could have been given by Mr Hutchinson to the questions discussed in the third lecture A full discussion of these questions could very properly have taken up two lectures, especially had those spoken of in the first been omitted altogether

ARTIFICIAL RESPIRATION AND STILLBIRTH

In the *American Journal of the Medical Sciences*, for January, 1886, Mr Francis Henry Champneys, of London, has a most instructive article "On Some Points in the Practice of Artificial Respiration in Cases of Stillbirth and of Apparent Death after Tracheotomy " Before entering into a consideration of the subject proper, however, he rightly draws attention to the fact that "deadbirth" and "stillbirth" are not synonymous, for while all deadborn children are stillborn, all stillborn children are not deadborn "A child born alive but 'still'—that is, generally, but not necessarily, with its heart beating, but without movement—may be in one of two stages or states, for the description of which we are indebted to Cazeaux In the first, which he calls the 'apoplectic state,' the surface is livid, but the muscular tone is not lost, and there is no response to reflex irritation In the second, which he calls 'syncope,' the surface is pale, the muscular tone is lost, and there is no response to reflex irritation These two stages are also known as the livid stage and the pale or flabby stage of asphyxia "

The length of time which apparently dead children sometimes survive is remarkable, and the authenticated cases show that the greatest caution should be used to guard against premature burial or autopsy The prognosis in cases of stillbirth, says Mr Champneys, is of the utmost importance as a guide to treatment, but is usually not made "The certainty of death in the cases of fresh children depends on the certainty of the cessation of the heart's action during a considerable period, for the heart may cease to beat for a time, apart from absolute death In such a case, when the heart has ceased to beat for a considerable time (say ten to fifteen minutes), it might be well cautiously to insert a needle into its apex, before abandoning all efforts at resuscitation " As regards how long attempts at resuscitation should be persisted in on the sole ground of continued action of the heart, he thinks that if no attempts at spontaneous breathing occur within an hour, and especially if the heart act with diminishing force and frequency, in spite of the attempts at artificial respiration, the prognosis is hopeless Upon the diagnosis of the state of asphyxia depends the second point in the prognosis, it being usually favorable in the livid stage, as this stage has the advantage of retaining reflex irritability "If the heart is beating fairly, it is often sufficient to lay the child on its face, wipe out its mouth, and rub it along the spine, a far better way of exciting an inspiration than slapping the nates " But the prognosis is far more serious in the pale or flabby stage, and depends on the ability of the accoucheur to raise the child from the condition of flabbiness and induce a condition of reflex irritability "Until this is done, all rubbing, slapping, bathing, etc , are simple waste of time While the heart beats regularly, we may still hope for recovery up to a reasonable length of time An important element in prognosis is the state of the pupils they are widely dilated in asphyxia, but at once contract when respiration is properly established

En passant Mr Champneys has a word for those who tie the cord early "It appears that a child gains some four to six ounces of blood after birth, the principal object of which is probably to furnish an additional supply for the newly established pulmonary circulation, This blood is not forced into its body so much as drawn into it by the first inspiration In ordinary cases, therefore, it is best to tie the cord late unless manipulations are indicated which require the child to be free from its mother " The usual advice that half an ounce or an ounce of blood should be allowed to escape from the cord in cases of livid asphyxia is probably founded on the livid appearance of the child "The child, however, has *less* blood than it should eventually have, and has no more than a child in the pale stage, the difference being one in the distribution rather than the amount of blood "

In artificial respiration four objects are aimed at removal of foreign bodies from the air-passages, procuring the patency of the air passages, excitation of the circulation, ventilation of the lungs The best method of removing foreign bodies from the air-passages is, according to our author, the following Lay the child on its back, with the head hanging over the edge of a table, a little lower than the rest of its body Wipe out the mouth with a soft handkerchief Press the thorax gently with one hand, stroking the trachea upwards with the other, and retain the finger at the top of the trachea until the next movement is complete The mucus will gravitate towards the posterior nares Put a handkerchief over the child's mouth, blow gently, and the mucus will be blown out of the nostrils, but not into the operator's face Should there be a large accumulation of mucus in the air passages, a No 9 elastic male catheter should be introduced into the trachea, so that the point is three and a half inches from the lips, which will secure its passage through the glottis, but not to the bifurcation of the trachea Press the thorax gently with one hand to prevent the entrance of air, and blow through the catheter In this way the mucus will be blown into the pharynx, as the compression of the thorax with the hand prevents it being carried into the lungs "This manœuvre is more efficient and far pleasanter than the suction usually recommended, it has answered well in practice "

For securing patency of the air passages, exciting the circulation, and ventilating the lungs, Mr Champneys thinks that Schultze's methods of artificial respiration accomplish them better than anything else (though for exciting the circulation pressure of the hand over the præcordium has an effect in raising the blood pressure and exciting the action of the heart, and is a chief reason for the success of the methods of Howard and Hall) The only two trustworthy methods for ventilating the lungs are those of Schultze and of Silvester (with the modifications of the latter by Pacini and Bain) As these methods and modifications have been known for more than a decade it seems unnecessary to give them in detail in this place Silvester's method does not imitate the natural breathing of the child, which is diaphragmatic, while in Schultze's methods the diaphragm is made to descend slightly Though his method has the disadvantage of being somewhat more violent than the others (which can be in a measure controlled by the operator), it has the two advantages that in the expiratory position the child is inverted, and gravity assists in removing mucus and other substances from the air passages, and that in some cases it really provides patency of the air-passages when other methods have failed In case it be desired to practise direct inflation of the lungs, the operation may be made clean by laying a towel over the child's mouth and breathing through it The asserted danger of rupturing the lungs may be averted by gentleness and leaving the nose free The imaginary danger of inflating the stomach need not be discussed

As regards the action of heat and cold Mr Champneys has but little to say, but that little is entirely to the point "It has been proved that, within limits, the lower the temperature the longer can an animal survive without breathing, and the higher the temperature the more quickly it dies To keep a child in a hot bath until respiration is established is, therefore, a wrong practice The hot bath can, however, be used in alternation with the cold bath, but merely as a means of increasing the effect of the cold bath, and in the pale (flabby) stage of asphyxia this also is useless Under such circumstances it is best to wrap the child in a warm flannel, and not to waste time on baths, but to proceed at once to the establishment of respiration " The treatment advocated in this admirable paper is summed up as follows Never hurry, it is not a question of seconds, and success depends upon a fine exercise of the judgment Make a good diagnosis, first, as to life or death, second as to the stage of asphyxia (if life is not extinct) If the child be macerated, it is obviously dead and past hope If the heart beat, ever so slowly and feebly, it is not dead If the heart be not beating, death is not certain, unless it can be proved to be inactive for some time If the child is livid and not flabby, it will probably come round, wipe out its mouth and pharynx, and rub it with a soft cloth down the spine, press gently on the cardiac region If this produces no effect, inflate the lungs by the mouth, and then by Silvester's method If air enter the lungs, well and good, if not, try Schultze's method, or insert a catheter, as described above On the first sign of muscular action, plunge the child into cold water, or into alternate cold and hot baths Vary the treatment between occasional inflation of the lungs, artificial respiration, pressure over the cardiac region, baths, irritation down the spine, according to the judgment, remembering what may be expected of each method, and that no one will suffice for all cases Watch for signs of resuscitation, namely, improvement in the color, in movements, in cardiac pulsations, as described above Never be content until the child breaths regularly, and appears to be continually improving

---

STATE MEDICAL SOCIETY OF ARKANSAS, CHANGE OF PLACE OF MEETING

The president, W H Hawkins, M D, and the secretary, L P Gibson, M D, of the State Medical Society of Arkansas, have sent out the following circular regarding the change of place of meeting of the Society

"On account of the terrific fire and cyclone that have afflicted Helena, and the probability of an overflow cutting off communication with that city about the time of the meeting, the committee of arrangements has given notice that it would be advisable to change the place of meeting Therefore the eleventh annual session of the State Medical Society of Arkansas will be held in the Council Chamber at Little Rock on Wednesday and Thursday, April 28 and 29, 1886, commencing on Wednesday at 10 a m

"It is of the greatest importance that members who intend to read papers will send the titles of the same to the secretary at once, so that a complete programme can be prepared

"Questions of grave importance to the medical profession, not only of Arkansas but of the whole nation will be considered, and every member ought to attend and induce others to come and join the society

"Arrangements have been made for reduction of fare on the railroads"

A BILL FOR AN ACT TO REGULATE THE PRACTICE OF MEDICINE AND SURGERY IN THE STATE OF IOWA has recently passed the Legislature of that State and become a law, though its penalties are not to be enforced until January 1887 The law is similar in many of its features to the well known Illinois law for regulating the practice of medicine and surgery The Bill in full may be found in the department of State Medicine in this week's issue of THE JOURNAL

THE ADDRESS IN MEDICINE BEFORE THE BRITISH MEDICAL ASSOCIATION —It is announced that DR J S BILLINGS, U S A, has been selected to deliver the Address in Medicine before the next meeting of the British Medical Association, in place of the late Professor Austin Flint The well known ability of Dr Billings and his familiarity with general medical literature, makes the selection one eminently proper

DEATH OF A MEDICAL STUDENT —MR GEORGE A COOK, a student of the Chicago Medical College, died April 8, 1886, at the residence of his father, Dr E P Cook, in Mendota, Ill, of pneumonia, aged 21 years He was a good student and a young man of much promise

MEDICAL LEGISLATION IN OHIO —A note from Dr R Harvey Reed, of Mansfield, Ohio, informs us that a Bill establishing a State Board of Health has passed both branches of the Ohio Legislature and become a law We have not as yet any details of the Bill

SOCIETY PROCEEDINGS

SUFFOLK DISTRICT MEDICAL SOCIETY

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE

Stated Meeting, March 10, 1886

F I KNIGHT, M D, CHAIRMAN

ALBERT N BLODGETT, M D, SECRETARY

The first work of the evening was the presentation of lantern-slides, by DR H O MARCY, containing

PHOTOGRAPHIC VIEWS TAKEN FROM MICROSCOPIC PREPARATIONS OF THE VARIOUS BACTERIAL FORMS FOUND IN THE COMMUNICABLE DISEASES,

as well as a series of preparations showing the impurities contained in the atmosphere, in water, in clothing, etc

DR CUSHING being called upon by the Chairman, remarked that he had nothing to say other than he had recently said before this Society in a paper upon an allied topic One thing is becoming more and more evident, and that is the great and increasing degree of importance which is to be attached to the various forms of bacterial organisms, both as causes of, and factors in, the origin or the course of a large and increasing list of diseases It is an undeniable truth that these lower forms of growth are associated in many ways with the health of the human subject, and the degree of weight to be attached to their presence cannot be overestimated The technical difficulties attending the study of these organisms in their relations to human health have been, and still are, greatly magnified, and the processes of their preparation and preservation made unnecessarily obscure There is no difficulty in the successful study of bacteria, any careful person can fully and completely understand the technique, and easily carry out the details of an examination of the animal tissues or secretions in relation to the presence or absence of disease germs Test tubes may be thoroughly sterilized in the kitchen oven, and a culture chamber may be made from two soup-plates placed one upon the other An even-temperature oven may be made from a wash boiler, and the entire process may be so simplified that any good microscopist may be able to carry it out Septic bacteria are easy to cultivate and to examine As we become familiar with the processes of culture, and realize that a single touch of a needle is sufficient to infect an aseptic culture, we form a better comprehension of the great importance of absolute cleanliness on the part of the surgeon, who may easily carry fatal infection—a veritable death sentence—beneath his finger-nail When a patient with a surgical disease takes cold in the wound, we now look for the signs of some septic contamination as the cause, and frequently find that absolute cleanliness will put an end to all the untoward symptoms.

Dr. Goodwin said that he had made some rather exhaustive studies in the department of bacteriology, and had had the common experience, that the ordinary means of illumination are quite insufficient for the purpose of detecting these small and refractory bodies.

He thought to buy an Abbé condenser, but found that it would cost here the sum of thirty dollars, which seemed too much to devote to one piece of accessory apparatus. Dr. Goodwin therefore obtained two ordinary plano convex lenses of about 1½ inches focal distance, and mounted them in metallic rings. These were now adjusted to each other so as to form almost a double convex lens, and are so adapted to the sub stage of the microscope as to act as a sub stage condenser. The surface of the upper lens is now ground at its centre so as to form a horizontal area of about one-half inch in diameter, the entire remaining ovoidal surface is rendered opaque by gently roughening it with a corundum strop, and the instrument is ready for use. With this means of illumination, Dr. Goodwin has been able to secure unusual power of penetration and definition, and has found that some forms of bacillary organisms are clothed with a pellucid envelope or capsule, which he has not seen mentioned by any other observer, in relation to these bodies.

Dr. W. N. Bullard read a paper on

CHRONIC TEA POISONING.

I desire to-night to draw attention to an affection which from its great frequency, the peculiar discomfort of its symptoms and its relative curability, is worthy of the careful consideration of the profession. At first sight it may seem surprising that so little has been either written or spoken in regard to this subject but I believe this to be principally due to two causes, firstly, the apparent ease with which any symptoms thus produced could be checked, by withdrawal of the existing agent, and secondly, to the indefiniteness and obscurity of these symptoms and the difficulty of proving their origin. During my study of this subject I have become more and more convinced that the latter difficulty is our greatest obstacle to a thorough knowledge of this affection, and that it is only to be overcome by the most careful investigation of each individual case and by the comparison of statistics drawn from a considerable number of such cases.

In the literature of this subject, which is curiously scanty and much of which has been written by the laity or from a non-professional point of view, I have been able to find only general statements, but few definite proved facts and *no* statistics.

In this paper we desire to confine our consideration to the cases of ordinary sub acute and chronic tea-poisoning, putting aside all acute cases, where large quantities of tea have been imbibed at a single sitting and all those of tea tasters or persons by profession exceptionally exposed to its toxic influence. In both these classes the symptoms are plain and well-known, and Morton's paper on tea-tasters leaves little more to be done in that direction except by those having special opportunities. The cases which I wish to consider are of the sort which present themselves daily to the general practitioner with symptoms sometimes obscure, and sometimes more or less pronounced.

The first fact which strikes the observer is the very gradual and insidious growth of the symptoms, which at first are frequently so slight and so indefinite as to be scarcely noticeable and only produce serious discomfort after a considerable period. This is one cause why their origin is not recognized by the patients themselves, and another reason for this may be found in the fact that the majority of them are of so general a character that they can readily be referred to some other source. Hence arises the difficulty in diagnosis, which so frequently occurs, and there are many cases in which it remains impossible to determine how far certain symptoms are the result of tea and how far they are due to other causes. As the cases become more severe the symptoms become more distinct and the diagnosis easier.

I will first describe a few cases of typical tea-poisoning and then proceed to the analysis of the symptoms.

Case 1. Boston Dispensary. Thomas G., about 55 years old, a horse-car washer. Complains of "rolling in the stomach" followed by flatus and tenesmus and has attacks of cold chills and weakness with a tendency to faint. He has staggered several times and come near fainting while at work, but has never fainted away. Has lost flesh lately. No palpitation, no cough. Drinks from one to three pints of tea per diem. He is emaciated and has a cachectic appearance. The heart and lungs are normal, so far as can be detected, except that the second sound is accentuated in the region of the pulmonary artery. Urine is normal in appearance, contains no albumen. Patient has lumbago and probably hæmorrhoids.

Case 2. Carney Hospital. Women, 40 years old. Diagnosis, "tea-dyspepsia." Patient is markedly nervous. She feels excited "as if afraid of somebody," especially when in a crowd. She used to have vertigo, but has never fallen. For two years she has been subject to distress in the epigastrium, palpitation, constipation, a dull heavy headache and dizziness, no cough. She drinks tea three times a day and also between meals.

Case 3. Woman 23 years old. Diagnosis, "tea-poisoning, anæmia." This patient applied at the Carney Hospital Out Patient Department on March 19, 1885, on account of bilateral headaches, frontal and occipital, accompanied by nausea and vomiting, which had occurred once a week for the preceding six months. She had been subject to these previously, but they were less severe and for about two years had been entirely absent. Her appetite was poor and she had a feeling of "weakness" in the epigastrium, but there was no distress after food, bowels regular. Had palpitation. Had never had rheumatism. Drank tea three times a day and also between meals. Under proper treatment she reported herself well on the 2d of April.

Case 4 Girl 13 years old Complains of pain in both sides, especially the left, nausea, but no vomiting, headache frontal and bilateral, palpitation and dyspnœa Bowels constipated The heart and lungs were normal, as far as could be detected There was some tenderness over the epigastrium Drank one to one and a half cups of tea three times a day This is a typical case of light tea-poisoning

Case 5 Woman 60 years old Dull frontal headache followed by "numbness" all over, which seems to be a sensation of weakness rather than a paræsthesia Attacks of dizziness, when she fears that she will fall Appetite poor No vomiting, but nausea with the headache Bowels regular Drinks pure black tea strong three times a day and occasionally between meals Distinct improvement in a week under treatment

Dr Henry I Bowditch said that this paper is a most useful and instructive contribution to what we knew only somewhat distinctly concerning the effects of tea, when its use has been persisted into such an extent as to produce true toxicological results Dr Bowditch has very decided views on the subjects of coffee and tobacco, but he has not so frequently observed the deleterious action of tea The Chinese in the tea-growing regions of the Flowery Kingdom take their tea in a manner very different from that to which we are accustomed The infusion is not so strong, being made of such a concentration that the bottom of the tea cup may be plainly seen through the infusion They use neither sugar or cream in the tea, and Dr Bowditch has found the flavor vastly improved by discarding these additions to tea as usually taken in this country All these substances are nervous stimuli, and all are capable of injurious influence upon the nervous system

The action is of the same nature as the stimulation from alcohol, but the effect is somewhat different, owing to the difference in the manner of taking the two substances, and probably too, owing to a difference in the particular mode of action of the substances Dr Bowditch related the case of a prominent politician, who was expected to appear and speak on a certain occasion, but who found himself quite unfitted mentally and physically to undertake the effort However, by the aid of a quantity of strong tea, he was able to keep his engagement, and to make a long and brilliant speech without betraying the signs of uneasiness or exhaustion

When the system is once saturated with either tea or tobacco, and the deleterious effects of these substances are once induced, there is nothing to do but to discard the articles at once and completely Nothing but "total abstinence" will be of any avail In Dr Bowditch's personal experience, he found that after once being saturated by coffee, a period of abstinence of fifteen years was not sufficient to remove the effect, but the moderate indulgence in coffee after this long interval was followed by the immediate reappearance of the original symptoms, on account of which the beverage was originally discarded Dr Bowditch has never heard a paper which so fully analyzed and so clearly explained the action of tea, as the work of the present author has done

Dr C P Putnam remarked that many physicians see patients in whom the influence of tea is plainly evident as a cause of depreciation of the general health Dr Putnam has seen many children, as well as adults, who were suffering from the effects of tea Frequently the diagnosis is a matter of great difficulty, and in obscure and puzzling cases it is not to be forgotten that the abuse of tea may be the sole cause One frequent symptom is that of ill defined distress, or at times actual pain, in the region of the heart or stomach, or in some other part of the abdomen, with constipation, which is proved to depend on the abuse of tea, and disappears upon the discontinuance of the harmful agent

The tea must be entirely withdrawn, as a small amount is sufficient to keep up the trouble

Dr Marcy stated that he had had two cases of tea-tasting One of these was a famous case The patient was well known in Boston as a celebrated tea-taster and confidential buyer for a well known tea house This patient died, and at the autopsy many gummous deposits were found distributed through the various organs of the body The patient had syphilis of Chinese origin Another man was in business in Boston He was habituated to tobacco, smoking fifteen cigars daily He was also a tea-taster, but never was affected by any symptoms referable to the tea Servants are fond of tea, and take it at all times of day, keeping the teapot on the fire all the time, and drinking from the dregs in the teapot The value of tea as a beverage is in its aroma, the dregs furnish a bitter, astringent and unpalatable infusion

Dr Bullard stated that it is very hard to form a correct estimate of the amount of tea which is taken This is particularly difficult in regard to servants, who are apt to underestimate the quantity they drink

Dr Weeks asked in how large a proportion of cases it is possible to persuade the victim to give up the use of tea

Dr Schofield said that the children of those who make large use of tea, and give it to their children, are often the subjects of obscure symptoms referable to the heart, which disappear on stopping the tea.

Dr E W Cushing stated that tea and coffee are much alike in one respect, from the fact that both contain a large amount of tannin, which is fully capable of causing a portions of the symptoms described, and may be the origin of a part of the trouble If tea were made in the manner employed in China the tannin would not be taken, and this element of disturbance would be removed Coffee may be prepared so as to deprive it of the tannin it contains, and it is then well borne, even by children It may be best made in this way Figs are taken as they are imported, and are baked so as to be of a brown color, and of taste and smell like caramel A portion of such prepared fig is boiled in the water, after boiling for a few minutes the coffee is added and prepared as usual Then an equal quantity of milk or cream is added and the coffee is served Coffee thus prepared consists of infusion of fig, some coffee and a good deal of milk

Dr Goodwin said that the tannin content of tea and coffee is so great that the tincture of chloride of iron cannot be given at the same time on account of the formation of ink in the stomach, and the consequent nausea

Dr Eastman remarked that the late Dr Jacob Bigelow was accustomed to speak of the tea and coffee as useful adjuncts to other forms of food and drink, but that they are only harmful when taken alone

In response to certain remarks in regard to the more injurious effect of tea after long infusion, Dr Bullard read the following quotation from Dr Roberts' Address on Therapeutics, delivered before the British Medical Association in 1885, as reported in the *British Medical Journal* of August 15th, 1885 "Some persons have supposed that by infusing tea for a very brief period—two or three minutes—the passage of tannin into the beverage could be avoided This, however, is a delusion Tannin is one of the most soluble substances known, it melts like sugar in hot water You can no more have tea without tannin than you can have wine without alcohol, and I found experimentally that tea infused for two minutes had almost exactly the same inhibitory effect on digestion as tea infused for fifteen or twenty minutes "

Dr Edes observed that one most frequent cause of dyspepsia is the fact that the diet is much deranged Too much drink and too little food is taken, and the patient gradually becomes anæmic, and the train of symptoms so often noticed in tea-poisoning gradually are developed In this way tea possesses one curious merit, as the patient can be sustained upon a more attenuated diet than when no tea is taken

Dr Farlow remarked that it is marvelous what a proportion of patients seen at the dispensary are totally ignorant of what is a proper condition of the bowels, and the little attention given to regularity of action in evacuation These patients are almost all tea topers, and are frequently insufficiently nourished They generally complain of a feeling of weight in the abdomen, and are also almost invariably nervous

Dr Blodgett said that Dr Cheever expected to have been present at this meeting, but was unavoidably detained This was the more to be regretted from the fact that Dr Cheever has had a large and interesting experience in the treatment of cases of disease arising from the inordinate use of tea The condition of these patients is not always the same, but presents a limited variation in the array of prominent symptoms One of the most frequently noticed conditions is a highly exalted state of the nervous system with increased reflex excitability, and a tremulous condition of the voluntary muscles, which justifies the name of "tea tremens," from the similarity of this symptom to the tremor belonging to cases of alcoholic poisoning This is most frequently noticed in servant girls, who partake frequently and exclusively of tea as a drink and do not obtain sufficient exercise in the air, and live principally on fine white bread, to the exclusion of other more wholesome and necessary articles of natural diet The result is that the system obtains only an insufficient nutrition, and the organs and functions of the body suffer a loss of organic or functional activity, or both A very important phenomenon in relation to the detrimental action of tea is its effect upon the teeth and other hard structures of the body This result is most noticeable in our Irish servant population, and particularly in the children born of parents who themselves emigrated to this country from Ireland The teeth of the parents are almost universally firm and durable in structure, and beautifully clear and white The teeth of the children, and especially those of the daughters, however, are found to be poorly formed, to be of brittle structure, and fall an easy prey to caries, and are lost at an early period This is undoubtedly due to the fact that many of these children are at service as house servants, and when following this occupation are addicted to the tea tippling and the fine bread above described The result is, that instead of the full and perfect denture of the parents who lived on plain and coarse food, without any of the abominations of our modern kitchens, these poor creatures obtain only a partial nutrition, the hard structures of the body being deprived of the necessary calcareous supply which resides in the the husk of grain, and is removed in the process of making fine flour, the teeth are insufficiently formed or inadequately maintained and consequently are early lost

Dr P C Knapp showed a series of

NORMAL ELECTRODES,

in which the size of the disk which is applied to the the surface in connection with the degree of intensity of current is measured by the resistance, constitutes a perfectly adjustable measure of the amount and intensity of the current employed, and is a necessary feature in the practical employment of electricity as a therapeutic agent

These electrodes are the sizes proposed by Erb[1] in 1882, and now accepted as the standard in regard to size, and with them a new size, recently proposed by Erb,[2] which merits a word of description In testing the galvanic excitability of nerve or muscle the appearance of contraction depends upon the absolute density of the current employed This absolute density varies of course directly with the intensity of the current which may be readily measured in milliampères on an absolute galvanometer, and it also varies inversely with the area of the electrode, just as the intensity of a stream of water varies inversely with the size of the tip of the pipe Hence we have the equation of D equals I divided by Q, where D equals absolute density, I equals intensity, and Q (querschnitt) equals area of electrode Having a ready measure for I in the milliampère, Erb has suggested the use of a "normal electrode" as a testing electrode, with an area of ten cm, either as a flake 3 2 cm square, or a round disc, like the one exhibited, with a diameter of 3 5—3 6 cm We may then say that KaSZ appears at 4 milliampères, normal electrode, or more simply, KaSZ appears at 4 10, or 4 milliampères, the numerator of the fraction denoting the number of milliampères, the denominator the area of the electrode

---

[1] Erb Handbuch der Elektrotherapie Leipzig 1882

[2] Neurolog Centralblatt, January 1 1886

OBSTETRICAL SOCIETY OF PHILADELPHIA

Stated Meeting, Thursday, April 1, 1886

The President, B F Baer, M D, in the Chair

W H H Githens, Secretary

Dr E P Bernardy read a paper on

THE VALUE OF BINIODIDE OF MERCURY AS AN ANTISEPTIC IN OBSTETRICS

(See page 422)

Dr Chas Hermon Thomas had heard the statements of Dr Bernardy with interest, and surprise that cases of so much gravity could be controlled by such simple means as vaginal injections His practice and belief has been that such cases require the introduction of washes into the uterus, the washing of the vagina being utterly futile The doctor related an instance in which a four-para was allowed to die of septicæmia, no effort being made to wash out the uterus, although vaginal antiseptic injections were frequently employed in the case Six weeks have elapsed since the death of that patient, and in that time the same practitioner has lost three additional parturient patients

Dr Longaker spoke in support of Dr Bernardy's practice We have been led to expect a prompt fall of temperature from the use of intra uterine injections in septicæmia post-partum His own plan is to discontinue intra uterine injections after the first thorough washing, unless offensive discharges come from the uterus He has observed that after the repeated introduction of forceps into the uterus, the introduction of the hand or other means favoring the introduction of air, a peculiar traumatic metritis results, and to relieve this he has been in the habit of introducing into the uterus an iodoform pencil, containing about 1⅔ drachms of iodoform, this prevents future sepsis (see Lusk, last edition) Prompt lowering of the temperature and pulse are the result if this is used, after sepsis has occurred, and even when antiseptic uterine injections have failed The effect of one of these pencils will last through two or three days, when another may be needed

Dr Howard A Kelly drew attention to the fact that the biniodide of mercury is almost if not entirely insoluble in water, and that an alcoholic solution would hardly be admissable He also called attention to the frequent presence of the bichloride as an impurity He read the following letter from Dr Francis L Haynes

"In reference to the potassio mercuric-iodide, I may add a little to the facts I mentioned in our conversation The last case of puerperal septicæmia I have seen in my own practice occurred in Mrs F, confined December 18, 1885 It was due to the fact that my hands were contaminated with septic matter, and that I trusted entirely to hard scrubbing and to inunction with oil of turpentine to purify them (after Goodell) In this case the pulse was 138, and the temperature ran up to 105°, but she recovered in a few days under copious injections of hot water into the uterus (generally plain, but sometimes with a little carbolic acid added) These injections were given, and during the days on which this treatment was being used I attended several cases of labor, purifying myself with ten per cent solutions of carbolic acid These cases had no trouble, but I became ill, as I always do when I use much carbolic acid, and my hands became sore I now began to use the potassio mercuric iodide solution to purify my hands, and since then have had no trouble whatever, although I have attended cases of labor within a few hours after (1) washing out the uterus of a patient of Dr L's suffering from septicæmia (terminating fatally), (2) after amputating finger and metacarpal bone of a man suffering from gangrene of finger and suppurative cellulitis of the hand and wrist, (3) after digging out putrid placenta after miscarriage (several instances), (4) after performing autopsy in a case of suppurative peritonitis, and bathing my hands freely in the pus The solution may be used without apparent injury to purify blunt instruments, and it is certainly a great comfort to soak your speculum thoroughly in it after treating a case of gonorrhœa

How is the solution prepared? A four ounce bottle is marked with a diamond so as to indicate drachms, and filled with distilled water containing ʒj each of potassium iodide and mercuric iodide (The cost of this solution is less than ten cents) It is now a very easy matter to make a solution of any desired strength extemporaneously A tablespoonful to the pint = one part to 1000 is the strength I generally employ, but after autopsies I use 1 to 500

How do I prevent my hands from becoming eczematous when using the solution? Once or twice daily, after washing the hands and while they are still damp, about ʒss of glycerine is poured into the palm and thoroughly rubbed into the whole surface of the hands, which are then dried as usual This is very effectual,

Dr William Goodell has had no experience with biniodide of mercury, but has had with bichloride He is not sure that Dr Bernardy is at fault in confining his antiseptic injections principally to the vagina, for where does sepsis usually take place? Not in the uterus, but through wounds of the vagina In the Charlotte Hospital they have good results from the use of bichloride injections and iodoform When the Preston Retreat was new they had a good record, but afterwards the per centage of fatal cases became too large This fault was remedied by the use of bichloride of mercury as a vaginal injection, and the introduction of ʒj of iodoform The pads to catch the lochial discharges were replaced by absorbent cotton medicated with corrosive sublimate In the last 140 cases no rise of temperature has occurred during the puerperal period In these cases the antiseptic applications were all directed to the lower portion of the womb and the vagina Dr Bernardy is probably right A solution of 1 to 2000 is too strong and will produce soreness after operations He does not like to have the patient on her side during and after the removal of the afterbirth, as it favors the entrance of air into the vagina, as in Sims' position She should be on her back

Dr Harris inquired if Dr Bernardy did not use uterine injections after the removal of the dead fœtus The effect of a decomposing fœtus with unbroken membranes within the uterus has a remarkably prostrating effect upon both mind and body of mother

Dr **Githens** descibed a case of post-partum septicæmia in which an offensive leucorrhœa, which had existed before labor and which had been neglected, was the apparent cause In this case vaginal injections of potassi mercuric-iodide quickly relieved the undesirable symptoms

Dr **Thomas** thought vaginal injections would be quite sufficient as a prophylactic agent, but would it be considered sufficient if septic peritonitis were present? One thorough uterine wash first and then pencils to prepare for subsequent vaginal washes In Bellevue Hospital uterine injections are always used when required, washes failed to reduce the temperature

Dr **Bernardy** uses the first injection himself and thoroughly washes out the uterus and continues the injections until the fluid comes away perfectly clear The firm contraction of the uterus eliminates the liability of absorption there, and the principal abrasions and absorbing surfaces are undoubtedly vaginal The results at least have been satisfactory

The pellets exhibited are quite soluble, and are chemically pure, the biniodide has been tested for bichloride, and none is present The potassium iodide present merely aids in the solubility without affecting the chemical composition of the mercuric iodide

CHICAGO MEDICAL SOCIETY

Thirty fourth Annual Meeting, April 5, 1886

The President, C T Parkes, M D, in the Chair

The Treasurer, **Harold N Moyer**, M D, reported a balance of $226 17 in the treasury Dr **Edmund Andrews**, Chairman of the Committee on Library, reported a balance of $210 88, donations of 268 volumes, and purchases of about 1600 volumes during the year

The following were elected

OFFICERS FOR THE ENSUING YEAR

President—Dr Edmund J Doering
First Vice President—Dr Wm T Belfield
Second Vice-President—Dr J F Todd
Secretary—Dr Liston H Montgomery
Treasurer—Dr Harold N Moyer
Necrologist—Dr John Bartlett

STANDING COMMITTEES

Committee on Library—Dr Edmund Andrews (whose term had expired)

Committee on Judiciary—Dr Addison H Foster, Dr Wm E Quine, Dr Truman W Miller

Committee on Membership—Dr Gerhard C Paoli, Dr D A K Steele, Dr E F Ingals

Committee on Publication—Dr John A Robison, Dr E W Andrews, Dr R Tilley

The Society then elected the following

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Wm T Belfield,
Franklin H Martin,
D R Brower,
D W Graham,
D A K Steele,
Edwin Powell,
J H Plecker,
W W Allport,
N S Davis, Sr,
W W Jaggard,
H M Thomas,
Liston H Montgomery,
O T Schenick
N S Davis, Jr,
G C Paoli,
Charles T Parkes,
E M McAuliffe,
I N Danforth,
H M Starkey,
A R Reynolds,
F E Waxham,
F C Schaefer,
R H Babcock,
Augustus V Park,
E A Baldwin,
Charles W Purdy,
L T Potter,
Robert Tilley,
James Burry,
S C DeVeny,
W E Casselberry,
T W Miller,
F A Stanley

Those wishing to attend the next meeting of the Illinois State Medical Society may apply to the Secretary for delegates' certificates

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

The Summer Session of the Faculte de Medecine—The Lecturers—Intra parenchymatous Injections of Bichloride of Mercury in Tuberculosis—Congenital Fibrous Band of the Leg—The French Surgical Congress—Madame Ribard and Paul Bert

The summer session of the Paris Faculty of Medicine began on March 15th The following is a complete list of the lecturers and subjects for the session, in order that your readers may become acquainted with the names of the leading medical men of this city Professors Baillon, Medical Natural History, Béclard, Physiology, Guyon, Surgical Pathology, Brouardel, Medical Jurisprudence, Regnauld, Pharmacology, Bouchard, Pathology and General Therapeutics, Damaschino, Medical Pathology, Vulpian, Experimental and Comparative Pathology, Tarnier, Obstetrics, Proust, Hygiene, Hayem, Materia Medica and Therapeutics In addition to his theoretical lectures, Professor Brouardel delivers practical instruction at the Morgue on Forensic Medicine and Toxicology

Clinics —Professors Germain Sée, Medicine, at l'Hôtel Dieu, Hardy, Medicine, at La Charité, Potain, Medicine, at the Necker Hospital, Jaccoud, Medicine, at La Pitié, Richet, Surgery, at Hôtel Dieu, Verneuil, Surgery, at La Pitié, Trelat, Surgery, at La Charité, Le Fort, Surgery, at Necker Hospital

Specialties —Professors Ball, Mental Pathology and Diseases of the Encephalon, at the St Anne Asylum, Grancher, Diseases of Children, Fournier, Syphilitic and Cutaneous Affections, at the St Louis Hospital, Charcot, Diseases of the Nervous System, at the Salpétrière, Panas, Ophthalmology, at the Hôtel Dieu, Pajot, Clinical Obstetrics

Supplementary Lectures —These are delivered by Agrégés, who thus prepare themselves for the higher function of Professor The following are the names of those engaged for the session

Drs Joffroy, Medical Pathology, Humbert, Surgical Pathology, Hanriot, Medical Chemistry, Blanchard, Natural History, Gariel, Physics, Regnier, Physiology, Hanot, Morbid Anatomy, Pinard, Obstetrics

In addition to the above, practical instruction is given on the following subjects by

Drs Hanriot, Chemistry, Guébhard, Physics, Faguet, Natural History, Laborde, Physiology, Rémy, Histology, Farabeuf, Operative Surgery, Gombault, Morbid Anatomy

Thus it may be seen that the French medical students have great advantages over those of other countries, particularly as the above lectures are given gratuitously, and are open to all nations

The natural outcome of the parasitic doctrine of diseases is of course the tendency to cure them by remedies reputed to be anti parasitic, and these are generally applied either by the mouth or by external applications But Dr Gougenheim thinks that unless the parasites can be directly attacked these remedies can be of little or no avail He has therefore conceived the idea of treating pulmonary tuberculosis by intra-parenchymatous injections of the bichloride of mercury, and he lately read a paper on the subject before the Société Médicale des Hôpitaux de Paris The author performed the injections with a Pravaz's syringe, which he introduces on the left side below the clavicle, through the first intercostal space, and on the right side through the first two intercostal spaces In order to avoid all accidents it is necessary to make the injection at a distance from the sternum and the neighboring rib, in order not to injure the intercostal and mammary vessels and nerves, neither should it be made too near the clavicle, or the subclavian vein may be injured, the subcutaneous veins should be avoided The injection should be given slowly, and the liquid employed is a solution of the bichloride of mercury in the proportion of 1 in 2000, 1 in 1000, and 1 in 100, the fluid being previously heated to 37° (98 6° F)

This treatment was adopted with thirty-three patients, most of whom were in an advanced stage of phthisis In twenty-one instances improvement was quick and undeniable, as ascertained by auscultation Ten patients died, of these, seven presented local modifications of lesions, which were easily detected at the necropsies At the necropsies of patients who had been thus treated, Dr Gougenheim never observed any muscular, pleural, or pulmonary lesions, which could be attributed to these injections One patient had hæmoptysis, and the injections were discontinued, another left the hospital whilst under this treatment

Dr Reclus, at a recent meeting of the Paris Surgical Society, presented a female patient who was the subject of a rare lesion One of her legs was constricted by a congenital fibrous band Last year Dr Reclus removed two thirds of the band, and subsequently the remaining third The success resulting has been perfect It has been suggested that this case evidently belongs to the same class as those in which amputation is produced *in utero* by constricting bands

The French Surgical Congress will hold its second meeting at Paris from October 18 to October 21 The subjects contained in the programme are Nature, Pathogenesis and Treatment of Tetanus, Nephrotomy and Nephrectomy, Orthopædic Resections, Surgical Operations in Irreducible Dislocations Papers on other subjects cannot be read at the Congress unless the conclusions of the author are forwarded to the Secretary, Dr S Pozzi, 10 Place Vendome, Paris, between July 1 and July 13, 1886 Papers that are not read will not be printed in the transactions

Madame Ribard, M D , of Paris having been appointed physician to the family of M Paul Bert, the newly-appointed Governor-General of Tonquin, has left Paris for that Colony Madame Ribard is also entrusted with the organization of an Ophthalmic Hospital, as well as a vaccine establishment, in that country A B

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

Is Disease of the Uterine Appendages as Frequent as has been represented—The Academy of Medicine, Changes in the Constitution

At the meeting of the Academy of Medicine held April 1, Dr Henry C Coe, Pathologist to the Woman's Hospital, read a very timely paper, entitled, *Is Disease of the Uterine Appendages as Frequent as it has been Represented?* which it is hoped will have some effect, at least, in putting a check upon the altogether reckless resort to Tait's operation which has of late been of such frequent occurrence in this country Having remarked that there was much yet to be learned in regard to the pathology of these organs, he said very truly that agnosticism in regard to ovarian and tubal disease met with very little encouragement at the present day, and that this was due to a large extent to the surgeon

In considering the condition and appearance of the ovary in any given case, he said, it must not be forgotten that during the entire sexual life of the female constant changes are going on in these organs Hence it was often very difficult to say just where the normal ends and the pathological begins Nothing was at present more common than to remove ovaries because they were "cystic," on the ground that because of this condition they were functionally useless Yet he had seen cysts as large as a marble which could not be called pathological, since they contained perfectly healthy ova which were certainly capable of being impregnated Taking up the pathological conditions of the ovary as viewed by the laparotomist, Dr Coe said that many of the variations of the organ in size and shape which were commonly regarded as pathological by him were found in ovaries which were to be looked upon as in fact entirely normal, at least as far as function was concerned Congestion and moderate enlargement did not necessarily imply chronic ovaritis and indicate oophorectomy, since, when the other pelvic organs were for any reason in a state of hyperæmia, the ovaries were naturally found hyperæmic also

In the same way, a decided diminution in size might not be pathological, but merely an indication of senile atrophy Again, certain conditions which are regarded by the laparotomist as pathological, such as thickening of the external covering of the organ, might not be so in reality, since such thickening was not at all abnormal in senile atrophy, or after very frequent ovulation, when localized thickening is very common, even when senile atrophy does not exist But, although there might be exterior thickening, it was no indication that there was cirrhosis of the internal stroma of the organ which interfered with its functions

Passing on to consider the subject from a microscopical point of view, he said that in order that the pathologist might give an intelligent opinion concerning any removed ovary presented to him for examination, he must be familiar with the normal histology of the organ, and, on account of the constant changes going on in the ovaries, previously referred to, this was a matter which involved no little difficulty The pathological appearances of well marked disease were readily recognizable, but the lesser ones were undoubtedly very hard to differentiate Again, because one portion of the organ was affected, it was no reason why the whole ovary should be implicated in the pathological process, and, acting on this principle, Schroder had lately been operating in such a way as to remove the diseased portions, and allow the rest to remain The number of cases thus far recorded, however, was too small to base any positive conclusions upon as to the practical utility of this method, but it was, at all events, a step in the right direction

In speaking of tubal disease he said that there could be no doubt that Tait's operation had of late been greatly abused No reasonable objection could be urged against the removal of Fallopian tubes which were filled with pus, but this was not the case with a large number of the tubes which are taken out Tait said that in chronic disease of the ovaries the tubes were always affected, but Dr Coe denied this, as the result of his personal pathological investigations Some of the so called diseases of the tubes were not recognizable by the pathologist at all There was no doubt about pyo salpinx or hydro-salpinx, when these conditions were present, but as to so called "catarrhal salpingitis," commencing pyo salpinx, and other presumed pathological conditions which constantly pass unchallenged in learned societies, there was very good reason for doubt In cases where the diagnosis of catarrhal salpingitis had been made, and the tubes and ovaries removed in consequence of the condition, Dr Coe had found on subsequent examination simply moderate hyperæmia, with a thin coating of mucus, which might exist in a perfectly normal Fallopian tube, there being no evidence whatever of any inflammation As long as the lumen was free, and the lining mucous membrane capable of performing its function, the tube was not abnormal, notwithstanding the fact that there might be slight adhesions of the fimbriated extremity

From his examinations he could say that pyo salpinx exists in about one-fifth of the cases where Tait's operation is performed Hydro salpinx is considerably less common, and hæmo salpinx extremely rare If there was no pus discernible, there was certainly no pyo salpinx, just as there could be no abscess anywhere without pus The pain that was so often attributed to disease of the tubes Dr Coe believed to be generally due to localized peritonitis, and sometimes to neuralgia pure and simple The one criticism that he had to make on American laparotomists, he said, was that they do not follow up their cases for a sufficiently long time As a rule, they were reported very shortly after the operation, when the results often seem all that could be desired, but if the histories could be given at the end of from six months to two years, it would not infrequently be found that no permanent benefit whatever had resulted from the procedure He had met with many women under these circumstances who still suffered in the same way as before the operation

The deductions drawn by Dr Coe were somewhat as follows

1 Ovarian disease is not as common as is now generally supposed This impression is derived from the surgeon, and not from the pathologist

2 Because the ovary is partially diseased, it does not follow that the whole organ is involved in the pathological process

3 "Cystic" and "cystic degeneration" are mischievous terms, which have been productive of much evil by leading to false conclusions and unnecessary ovariotomies in consequence

4 Actual disease of the tubes is far less frequent than many surgeons would have us believe

5 Localized peritonitis will account for much of the trouble attributed to disease of the uterine appendages

While some of the gynecologists who took part in the discussion of the paper were disposed to take issue with its author in regard to the frequency of disease of the uterine appendages, it was noticeable that without an exception they all condemned the frequent removal of these organs Even Dr W Gill Wylie, whose name is more closely identified with Tait's operation than almost any other New York laparotomist, was careful to put himself on record on the conservative side by stating that at the present time he seldom or never resorted to this procedure except in the case of pyo salpinx

Dr Lusk, whose views were more entirely in accord with those of the essayist of the evening than any of the other speakers, remarked that in his paper Dr Coe had covered nearly all the ground which he had himself been accustomed to take in the tirades against the abuse of Tait's operation with which many of his gynecological friends were now familiar He was by no means an enemy of the operation, he said, but thought it did great good in its place More than once, however, he had stood by and seen tubes removed which were described by various pathological designations, but which seemed to him to be entirely normal In the same way, he had seen ovaries taken out, of which it was said that they were in a state of commencing cystic degeneration, but which appeared to him typical examples of physiological ovaries, precisely like those he had formerly been accustomed to exhibit to his classes as such when he used to teach that branch of physiology He then took great interest, he said, in pointing out the changes which are constantly going on in these organs, and these so called cystic ovaries, which had been removed for imaginary disease, were simply ovaries which were undergoing these same physiological changes Since surgeons had come to be able to remove the ovaries and tubes with comparatively little risk to the patient, the operation was performed entirely too frequently Tait's advice was to cut open the abdomen and examine the condition of the uterine appendages, when, if they were found all right, they were to be returned to their places in the pelvic cavity But he himself had yet to meet with the surgeon who after getting thus far in the operation, did not take out the organs altogether, whatever their condition might be

Dr Lusk believed that there were very few cases in which the condition of pyo salpinx could not be diagnosticated by proper manipulation with the fingers of one hand in the vagina, and that the great mistake of the present day among gynecologists was the too frequent opening of the abdomen Unless the enlarged tube could be felt, in the manner described, outside the body, the operation ought not to be performed, and he said that if this rule were generally observed, there would not be so many tubes removed In the course of time he thought it probable that even in this class of cases Tait's operation might be avoided by the use of some such instrument as that devised by Dr Mundé, which consists of a syringe with a hypodermic needle attached

In regard to this last point of Dr Lusk Dr Wylie said that he did not think that aspiration would cure any case of pyo salpinx, because the pus would be sure to return after it had been evacuated Another objection to it was that there was a possibility of causing fatal injury with the instrument, by wounding the uterus In the course of his remarks Dr Wylie expressed his conviction that in the great majority of cases localized peritonitis was associated with disease of the ovaries and tubes, an opinion which was also coincided with by Drs Polk, Munde and Noegerrath

In closing the discussion Dr Coe stated that his anatomical studies had led him to look with some doubt upon a diagnosis resting on clinical observation alone Fearing that the position which these investigations had obliged him to take in regard to the comparative infrequency of disease of the uterine appendages might perhaps be thought not altogether well supported, he had written to obtain the opinion of Dr Wm H Welch, now of the Johns Hopkins University, of Baltimore, who was acknowledged to be one of the most distinguished microscopists in the country, and who had had a very large experience in this special field Dr Welch had replied that he believed Dr Coe's position to be well taken He said that he saw very few cases of pyo salpinx in his examinations, and that he was continually receiving ovaries and tubes, removed by laparotomy, which were, as far as he could make out, entirely free from disease He furthermore expressed the opinion that it was a mistake to suppose that the so called "cystic" ovaries would degenerate into cystoma

It is probably not known at all out of New York, and perhaps to a very limited extent among the profession even here, what radical changes have been made during the past winter in the constitution and by laws of the Academy of Medicine These changes, however, constitute them, in many essential features, an entirely different instrument from the old constitution and by-laws In comparing the old and the new constitution, the first change that strikes one is in regard to the objects of the Academy In the old, these are stated to be (1) The cultivation of the science of medicine (2) The advancement of the character and honor of the profession (3) The elevation of the standard of medical education (4) The promotion of the public health In the new, the single object is announced to be "the promotion of the science and art of medicine" While many of the changes are decided improvements, as regards the details of the work of the Academy and the simplicity and accuracy of the wording of the various sections, the most striking and extraordinary one is in regard to the matter of ethics In the new constitution and by-laws there is absolutely no reference in any manner whatever to this subject In the old by-laws, Section 5 of No XIV reads as follows "All questions of ethics in other respects shall, as far as applicable, be adjudged in accordance with the Code of Ethics promulgated by the American Medical Association and adopted by the Academy" In the new instrument not only is the New Code not substituted for the National one, but it out-Herods Herod by cutting completely loose from all codes

Practically the only reference to the matter of discipline now found is in the eighth article of the constitution, in which it is provided that the Academy may, by a three-fourths vote of the resident Fellows (the printed call for the meeting having contained a notice of the motion to suspend or expel), suspend or expel a Fellow 'for violation of its regulations" The only other reference to discipline in the constitution is in Article VII, where it is stated that the certificate of fellowship may be revoked for cause, but as there is no provision whatever for the manner in which this revocation is to be accomplished, it really amounts to nothing The only reference of the kind in the by-laws is in the eleventh section of No X, which reads as follows "It (the Council) shall, on a written statement signed by a complainant, and duly forwarded through the Recording Secretary, take cognizance of any complaint against a Fellow The Council may, after investigation, dismiss a complaint or transmit its finding thereon to the Academy for further action" From this it will be seen that the matter of disciplining is therefore wholly comprised in Article VIII of the constitution, which, as just mentioned, prescribes that he may be suspended or expelled for violation of the Academy's regulations As there is nothing whatever in these "regulations" of the faintest ethical import, it is evident that a Fellow can be suspended or expelled solely for a breach of certain routine rules He may be a debauchee, or sot, a blackleg or a thief, but so long as he acts in accordance with these "regulations," the Academy cannot touch him, and if it attempted to do so, the defense that he had not violated the regulations would hold good in any court of law There is not even the saving clause of "conduct unbecoming a gentleman" anywhere to be found

Furthermore, it is not necessary, so far as any statutory provisions are concerned, that in order to belong to the Academy a person should be a *regular* graduate in medicine So far as regards any restriction in the constitution or by-laws, a homœopath, eclectic, "physio medical," "herb doctor," or any kind of a charlatan whatever, is entitled to become a Fellow if only he is the possessor of a diploma or license, and has resided in New York or its vicinity for three years There is absolutely nothing said about what sort of a college or other body the candidate must have derived his diploma or license from, it is simply required that he "must have been a graduate or licentiate in medicine" It is noticeable that the committee on education, as well as that on ethics, has been entirely abolished

Hitherto the Academy of Medicine, although many of its Fellows individually repudiated the National Code, has been entitled, as a body, to representation in the American Medical Association by reason of its technical adherence to the Code, but, of course, now that it has repudiated the latter in its corporate capacity, it has placed itself in the same anomalous position as the Medical Society of the State of New York P B P

LAPAROTOMY FOR PELVIC ABSCESS

To the Editor of the Journal

Dear Sir —I entirely agree with Dr Christian Fenger in his remarks on Dr Jackson's paper, in a recent meeting of the Chicago Gynecological Society, when he says "The operation performed in Dr Jackson's case I should not call a laparotomy at all, but simply an oncotomy An abscess was opened, and the operation does not differ materially from the opening of a deep-seated abscess in any other region of the body, *e g*, in an extremity"

In the cases reported done in this country there was one performed by me in June, 1884 I think it was the first successful case of laparotomy for pelvic abscess done in this country It will be found in the *Medical News*, for 1884 In this case the sac of the abscess was stitched to the abdominal wound, and then opened and drained The woman is still living and in excellent health I think this case was reported by Dr Stone, my assistant, and is probably referred to in Dr Fenger's list, given in his remarks

Very respectfully, R S Sutton, M D

419 Penn Ave, Pittsburgh.

STATE MEDICINE

REGULATION OF MEDICAL PRACTICE IN IOWA

The following Bill for an act to regulate the practice of medicine and surgery in the State of Iowa has been recently passed

Be it enacted by the General Assembly of the State of Iowa

Section 1 That every person practicing medicine, surgery or obstetrics, in any of their departments, within this State, shall possess the qualifications required by this act If a graduate in medicine such person shall present his or her diploma to the State Board of Examiners, for verification as to its genuineness If the diploma is found genuine and is issued by a medical school legally organized and in good standing, of which the State Board of examiners shall determine, and if the person presenting and claiming such diploma be the person to whom the same was originally granted, then the State Board of Examiners shall issue its certificate to that effect signed by not less than five physicians thereof, representing one or more physicians of the schools on the board, and such certificate shall be conclusive as to the right of the lawful holder to practise medicine, surgery and obstetrics within this State If not a graduate the person practising medicine or surgery within this State, unless he or she shall have been in continuous practice in this State for a period of not less than five years, of which he or she shall present to the State Board of Examiners satisfactory evidence in the form of affidavits, shall appear before said State Board of Examiners and submit to such examination as said board may require All examinations shall be conducted in writing, and all examination papers, together with the reports and action of the examiners thereon, shall be preserved as the records of the board for a period of five years, during which time they shall remain open for inspection at the office of the said State Board of Examiners Such examinations shall be in anatomy, physiology, general chemistry, pathology, therapeutics, principles and practice of medicine, surgery and obstetrics *Provided*, that each applicant upon receiving from the secretary of the board an order for an examination shall receive also a confidential number which he or she shall place upon his or her examination papers so that when said papers are passed upon by the examiners, the latter shall not know by what applicant said papers have been prepared That upon each day of examination all candidates be given the same set or sets of questions It is further provided that the examination papers shall be marked upon the scale of one hundred (100) and that in order to secure a license, it shall be necessary for the applicant to attain such average as shall hereafter be determined by the State Board of Examiners And if such examination be satisfactory to at least five physicians of said board, representing the different schools of medicine on the board, the board shall issue a certificate which shall entitle the lawful holder thereof to all the rights and privileges herein provided, and the physicians and the secretary of the State Board of health shall constitute and be deemed a Board of Examiners for the purpose of this act

SEC 2 The State Board of Examiners shall procure a seal within sixty days after the passage of this act, and through the secretary of said board shall receive applications for certificates and examinations The president, or any member of the board, shall have the authority to administer oaths and take testimony in all matters relating to their duties as examiners aforesaid The board shall provide three forms of certificates One for persons in possession of genuine diplomas, one for candidates examined by the board, and one for persons who have practised medicine or surgery in any of its departments for five years as provided in this act Said certificates shall be signed by not less than five physicians of the board, and this number may act as examining board in the absence of the full board, provided that one or more members of the different schools of medicine represented in the State Board of Health shall also be represented in the Board of Examiners The Board of Examiners shall hold meetings at such places as will best accommodate applicants residing in different portions of the State, and at such times as they shall deem best and due notice of the time and place of such meetings shall be published

SEC 3 The board shall examine all diplomas submitted to them for such purpose to determine their genuineness and the rightful ownership of the person presenting the same The affidavit of the applicant and holder of any diploma that he or she is the person therein named, and is the lawful possessor thereof, shall be necessary to verify the same with such other testimony as the board may require Diplomas and accompanying affidavits may be presented in person or by proxy If the diploma shall be found genuine, and in possession of the person to whom it was issued, the State Board of Examiners shall, upon the payment of a fee of two dollars, to the secretary of the board, issue a certificate to the holder of such diploma, and no further fee or sum shall be demanded or collected from said applicant by said board for such certificate If the diploma shall be found to be fraudulent, or not lawfully in the possession of the holder or owner thereof, the person presenting such diploma or holding or claiming possession thereof, shall be deemed guilty of a misdemeanor, and on conviction thereof, before any court of competent jurisdiction, be fined not less than twenty dollars nor more than one hundred dollars

SEC 4. Every person holding a certificate issued by the State Board of Examiners, shall, within sixty days after the date of such certificate, have the same recorded in the office of the county recorder in the county wherein he resides, and should he remove from one county to another to practise medicine, surgery or obstetrics, his certificate must be recorded in the county to which he removes The county recorder shall indorse upon the certificate the date of record, and he shall be entitled to charge and receive a fee of fifty cents for his services, to be paid by the applicant

SEC 5 The county recorder shall record in a book provided for that purpose, a complete list of the certificates presented for record, and the date of their issue by the State Board of Examiners If the certificate is issued by reason of a diploma, the name of the medical college conferring the same, and the date when conferred shall be recorded, and when such certificate shall have been granted upon the examination of the board, or because of seven years' practice in the State, such facts shall be recorded Said record shall be open for inspection during business hours

SEC 6 Candidates for examination shall pay in advance to the Secretary of the State Board of Examiners, a fee of ten dollars, which fee, together with the fees received for certificates, shall defray the entire expense of the aforesaid Board of Examiners, and the balance shall be turned over to the State Treasurer for the benefit of the school fund, except such an amount as will pay each member of the Board ten dollars ($10) per day during the time he is in actual attendance upon the session of the said Board for the purpose of performing the duties required of him under this act, and as will pay the Secretary of Board such a salary as they may allow, not to exceed five dollars per day during the time he is actually engaged in performing the work of the Board under this act, and each member of the Board of Examiners shall also receive a sufficient amount to defray his actual and necessary expenses while in the discharge of the duties herein provided Any one failing to pass the required examination, shall be entitled to a second examination within twelve months without fee Provided that any applicant for examination by notice in writing to the Secretary shall be entitled to an examination within three months from the time of said notice, and a failure to give such opportunity, shall entitle such applicant to practice without the certificate required by this act, until the next regular meeting of said Board

SEC 7 The State Board of Examiners may refuse to grant a certificate to any person who has been convicted of a felony committed in the practice of his profession, or in connection therewith, may revoke certificates for like cause, or for palpable evidence of incompetency, and such refusal or revocation shall prohibit such person from practicing medicine, surgery and obstetrics, *provided*, such refusal or revocation of a certificate can only be made with the affirmative vote of at least five physicians of the State Board of Examiners, in which number shall be included one or more members of the different schools of medicine represented in said Board, and *provided, further*, that the standing of a legally chartered medical college from which such a diploma may be presented, shall not be questioned except by a like vote

SEC 8 Any person shall be deemed as practising medicine, surgery or obstetrics, or to be a physician within the meaning of this act, who shall publicly profess to be a physician, surgeon or obstetrician and assume the duties, or who shall make a practice of prescribing or of prescribing and furnishing medicine for the sick, or who shall publicly profess to cure or heal, by any means whatsoever, but nothing in this act shall be construed to prohibit students of medicine, surgery or obstetrics from prescribing under the supervision of preceptors, or gratuitous service in case of emergency, nor shall this act extend to prohibit women who are now engaged in the practice of midwifery, nor to prevent the advertising, selling or prescribing natural mineral waters flowing from wells or springs, nor shall this act apply to surgeons of the United States army and navy, and marine hospital service, nor to physicians as herein defined who have been in continuous practice in this State for seven years, three years of which time shall have been in one locality, *provided*, such physician shall furnish the State Board of Examiners satisfactory evidence of such continuous practice, and shall procure the proper certificate as provided in this act, and for which certificate such physician shall pay to the Secretary of the State Board of Examiners a fee of two dollars, and the Board of Examiners shall grant a certificate to such applicant, nor shall this apply to registered pharmacists when filling prescriptions, nor shall it be construed to interfere with the sale of patent or proprietary medicines in the regular course of trade

Sec 9 Any person who shall practise medicine or surgery within this State, without having complied with the provisions of this act, and who is not embraced in any of the exceptions, or after being prohibited from so doing, as provided in section 7 of this act, shall be deemed guilty of a misdemeanor, and shall, on conviction thereof, be punished by a fine of not less than fifty nor more than one hundred dollars, or by imprisonment in the county jail not less than ten days nor more than thirty days

Sec 10 Any person who shall file, or attempt to file, with the State Board of Examiners, as his or her own, the diploma of another person, or who shall file or attempt to file with the county recorder the certificate of another person as his or her own, or who shall file or attempt to file a diploma or certificate with the true name erased therefrom and the claimant's name inserted, or who shall file or attempt to file any forged affidavit of identification, shall be deemed guilty of the crime of forgery

Sec 11 The penalties, as provided in this act, for violations thereof, shall not be enforced prior to the first day of January, A D 1887

Sec 12 All acts or parts of acts in conflict with this act, are hereby repealed

---

ASSOCIATION ITEMS.

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo, on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By-Laws*, Art 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology—Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky, *Secretary*

Obstetrics and Diseases of Women and Children—Dr S C Gordon, Portland, Me, *Chairman*, Dr J F Y Paine, Galveston, Texas *Secretary*

Surgery and Anatomy—Dr Nicholas Senn, Milwaukee, Wis, *Chairman*, Dr H H Mudd, St Louis, Mo, *Secretary*

State Medicine—Dr John H Rauch, Springfield, Ill, *Chairman*, Dr F E Daniel, Austin, Texas, *Sec'y*

Ophthalmology, Otology, Laryngology—Dr Eugene Smith, Detroit, Mich, *Chairman*, Dr J F Fulton, St Paul, Minn, *Secretary*

Diseases of Children—Dr W D Haggard, Nashville, Tenn, *Chairman*, Dr W B Lawrence, Batesville, Ark, *Secretary*

Oral and Dental Surgery—Dr John S Marshall, Chicago, Ill, *Chairman*, Dr A E Baldwin, Chicago, Ill, *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting—*By-Laws*

Committee of Arrangements—Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich—Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence

Wm B Atkinson, M D,
Permanent Secretary
1400 Pine St, S W cor Broad, Philadelphia

Round Trip Tickets at reduced rates will be issued to delegates attending the next meeting of the American Medical Association, on the 4th of May next, at St Louis, Mo , by the following agents of the Chesapeake & Ohio Railroad H W Fuller, Gen'l Pass Agent, Richmond, Va , Frank Trigg, Pass Agent, 513 Pennsylvania Ave , Washington, D C S R Seal, Ticket Agent, 339 Broadway, N Y The trip on the ocean from New York via the Old Dominion line of steamers to Old Point Comfort, or Richmond, Va , is perfectly delightful at this season of the year, and from those points and Washington City over the C & O , through the mountains of Virginia via the celebrated White Sulphur Springs, West Virginia and Louisville to St Louis, Mo , the scenery is grand and beautiful beyond description Delegates from all points on the Missouri Railroad, including Kansas City and St Joseph, Mo , Leavenworth and Atchison, Kan , and Omaha, Neb , will have until May 30 before returning

Other weekly medical journals will please copy

R M Jordan, M D ,
Chairman Transportation Committee
St Louis Mo

Railway Facilities to the Association Meeting —The regular through trains of the Illinois Central Railroad from Chicago to St Louis will afford excellent accommodations for delegates who wish to attend the meeting of the American Medical Association at St Louis the first week in May The night express, with Pullman sleeping cars, leaves Chicago at 8 30 p m , and arrives in St Louis at 7 a m The rates are $7 50 round-trip

The rates on the Baltimore and Ohio Railway for those coming from the East and South east are full fare coming and one third fare returning

The Illinois Central, Chicago and Alton, and the Wabash Railways have agreed to fix the rates from Chicago to the meeting of the Association, for members, at $7 50 *round trip*

The rate by the Pennsylvania Railroad, from Philadelphia to St Louis and return, will be $30 35 By the Baltimore and Ohio, in consequence of their low Western rates, it will be $23 75, with the privilege of stop over at Washington or Baltimore if desired

MISCELLANEOUS

Notice of Removal — Dr T Gaillard Thomas has removed from 294 5th avenue, New York, to 600 Madison avenue, between 57th and 58th streets

The Local Committee of Arrangements and the Death of Dr Flint — *Whereas,* The members of the Local Committee of Arrangements have heard with sorrow of the sudden death of Professor Austin Flint, M D , LL D , whose eminent services to medical science, and whose life work in practical medicine had endeared him to the medical profession, and whose private and personal character was such as to insure him the admiration and respect of the profession in this country and abroad, therefore, be it

Resolved, That this Committee thus publicly express their deep regret at his death, and tender to the family of the deceased their most profound sympathy

J B, Hamilton, M D ,
A Y P Garnett, M D , } *Committee*
D R Hagner, M D ,
Washington, April 5, 1886

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM MARCH 27 1886 TO APRIL 9 1886

Major Henry McElderry, Surgeon, relieved from further duty in connection with the New Orleans Exposition, and ordered, on the expiration of his present leave of absence, for duty in Dept East (S O 71, A G O , March 26, 1886)

Asst Surgeon Leonard Y Loring, granted leave of absence for one month, provided that during his absence he furnishes the necessary medical attendance at San Diego Bks , Cal (S O 19, Dept Cal , March 24, 1886)

Asst Surgeon Jno Van S Hoff, granted one month's leave of absence (S O 29, Dept Mo , March 29, 1886)

Asst Surgeon J M Banister, granted leave of absence for one month, to commence on or about April 2, 1886 (S O 63, Dept East, March 26, 1886

Asst Surgeon Aaron H Appel, granted leave of absence for one month (S O 66 Dept East, March 30, 1886)

Major Albert Hartsuff Surgeon, granted leave of absence for fifteen days (S O 71, Dept East, April 7, 1886)

Major Henry McElderry, Surgeon U S Army, ordered for duty as Post Surgeon, Ft Wayne, Mich (S O 69, Dept East, April 2, 1886)

Capt James C Merrill, Asst Surgeon, granted leave of absence for three months (S O 81, A G O , April 7, 1886)

Capt Victor Biart, Asst Surgeon, sick leave of absence still further extended one year on account of sickness (S O 79, A G O , April 5, 1886)

Asst Surgeon Richard W Johnson, relieved from duty at Ft Buford, D T , and ordered for temporary duty at Ft Snelling, Minn (S O 28, Dept, Dak , March 29, 1886)

Asst Surgeon R L Robertson, on expiration of his present leave of absence, will be relieved from duty in Dept Texas, and will report in person to commanding general Dept Dak for assignment to duty (S O 78, Dept Dak , April 3 1886)

Capt Jno V Lauderdale, Asst Surgeon, from Dept Dakota to Dept Texas

Capt Geo W Adair, Asst Surgeon, from Dept Dakota to Dept East

Capt Jas A Finlev, Asst Surgeon, from Dept Texas to Dept Dakota

Capt H S Kilbourne, Asst Surgeon, from Dept Dakota to Dept Columbia

Capt E F Gardner, Asst Surgeon, from Dept Columbia to Dept East

Capt Wm W Gray, Asst Surgeon, from Dept East to Dept Dakota

Capt J M Banister, Asst Surgeon, from Dept East (upon the expiration of his present leave of absence) to Dept Columbia

First Lieut E C Carter, Asst Surgeon, from Dept Arizona to Columbus Bks , Ohio

First Lieut R W Johnson, Asst Surgeon, from Dept Dakota to Dept East

First Lieut Geo F Wilson, Asst Surgeon, from Dept Columbia to Dept Dakota (S O 79, A G O , April 5, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE TWO WEEKS ENDING APRIL 10 1886

Atlee, L W , Asst Surgeon *ordered to duty on U S R S "Vermont"*

Drake, N H , P A Surgeon, detached from duty at Naval Hospital, Philadelphia, and ordered to duty at Naval Hospital, Brooklyn, N Y

Fitts, H B , P A Surgeon, detached from duty at Naval Hospital, Brooklyn, N Y , and ordered to duty at Naval Hospital, Philadelphia

Anderson Frank, P A Surgeon, detached from Naval Laboratory New York, and granted six months' leave from May 1, 1886, with the privilege of going abroad

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI | Chicago, April 24, 1886 | No 17

ORIGINAL ARTICLES

THE TREATMENT OF COMPOUND FRACTURES BY WIRING AND DRAINAGE[1]

BY W P. VERITY, M D ,

OF CHICAGO, ILL

SURGEON TO THE COOK COUNTY HOSPITAL

Bilroth, in an edition of his "Surgical Pathology," written before antisepticism had begun to struggle for an existence, says " The treatment of complicated fractures is one of the most difficult problems in surgery We never cease learning on this point" In this view of the case may be found my apology for the introduction of a seemingly exhausted topic for discussion

In the procedure I am about to describe, there is no single *detail* which is strictly original, but the procedure as a whole deserves the attention of the profession When a comminuted fracture comes under my observation, the affected part and its surroundings are carefully cleansed and shaven Soft parts so ragged and contused, and so situated as to produce separation of the fragments and to act as foreign bodies, are removed, as likewise all foreign bodies, the external wound being enlarged, if necessary, for this purpose If the part affected be a lower extremity, this is flexed at an obtuse angle The fragments are then approximated in the most normal position possible For this purpose projecting sharp points, if denuded and acting as irritants, may be removed, as in Case 4, but an effort should be made to retain all such fragments as means of support, as in Case 2 When the best possible approximation is secured, the fragments are wired or nailed together, silver wire (when of good quality) is preferable, but iron wire is the most attainable and can be readily disinfected by means of heat and rendered properly flexible Drainage is secured by means of large tubes from the most dependent point The whole extremity is then covered with an extensive thick antiseptic dressing, and incased in a plaster cast, removable at each dressing The present procedure has certain very demonstrable advantages in cases which otherwise could not be treated antiseptically in a thorough manner

In illustration of these advantages the following cases may be cited *First* All points of bone and injured tissue fragments, *likely* to act as irritants, are removed, except where bone point is needed for mechanical support This is well illustrated by the following case

Case 1 —C W S , white, aged 39, a painter, had a recurrent attack of erysipelas, but no venereal disease, he fell from a scaffold, sustaining a compound comminuted fracture of the tibia and fibula

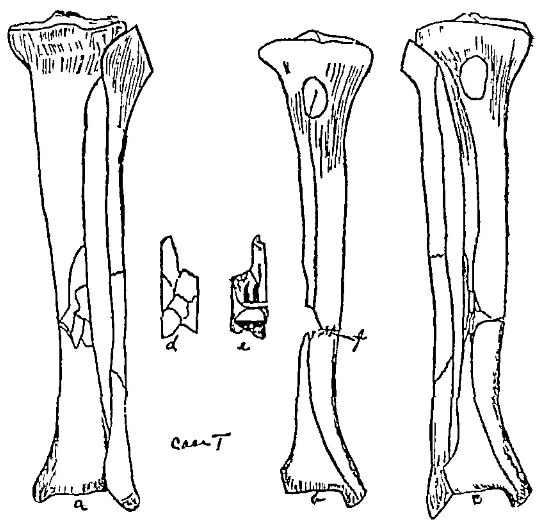
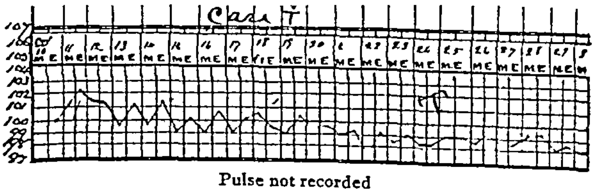


FIGURE 1 —*A* posterior view *B*, anterior view *C* lateral view *D* and *E*, fragments *F*, wire

In this case the wound was enlarged upwards and downwards with scissors until it was about five inches in length, and seven pieces of bone were removed Two sharp points of bone were left at the junction of the lower and middle third of the tibia, which could not be retained in normal approximation These points were thereupon removed sufficiently to secure such retention of normal approximation The fragments were then wired together and dressed in the manner already described The further progress of the case is well illustrated in the accompanying chart



Pulse not recorded

It may be said that from time to time small fragments of tissue came away The fragments of bone approximated in the manner already described were denuded of periosteum, the upper fragment about an inch and a quarter and the lower about an inch, despite of this denudation, but little of either fragment exfoliated, as the denuded bone soon became permeated with blood-vessels and retained its vitality There was no resection of the fibula, the upper fracture of the latter perfectly united, the lower fracture did not, and two months after admission the lower fragment was drilled and has since united At present writing the patient seems likely to have a useful limb, without more than about half an inch of shortening The limb in such a case would usually have been amputated, since the extent of the injury would have been considered too great to permit of repair for a useful limb [1]

---

[1] Read in the Section of Surgery and Anatomy at the Thirty Sixth Annual Meeting of the American Medical Association

Second Proper retention of the fragments in place is presumably secured, thus avoiding any possible danger of the fragments overriding and injuring the soft tissues

Case 2—M S, single, sailor, 35 years old, of intemperate habits, was admitted to the Cook County Hospital on December 10, 1884 He has never had venereal troubles, but has been frequently attacked by intermittent fever, and on one occasion suffered from erysipelas The patient, while drunk, fell from a street car, sustaining a compound fracture of the skull over left eye, and a compound fracture of left humerus near neck, together with a lacerated wound of the left thigh and a contusion of left elbow

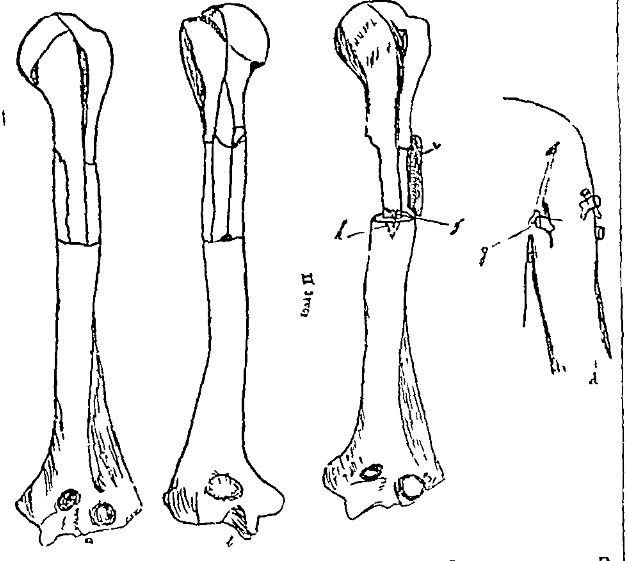
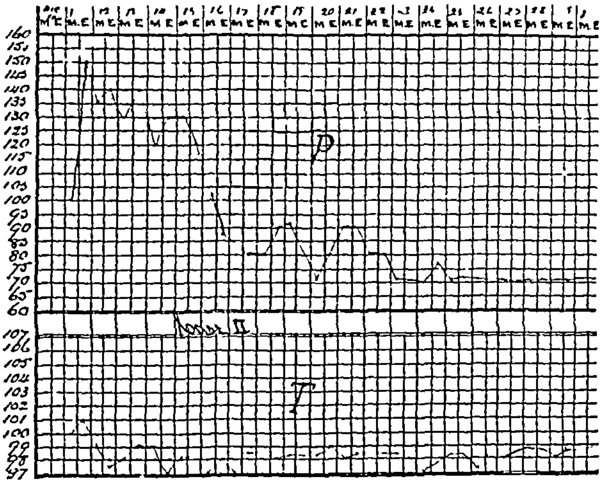


Figure 2—*A* anterior view *B* posterior view *C* anterior view *D*, anterior view of soft parts *F* remaining fragment. *F* dead bone removed March 1885 and wire *G* drainage tube ¾ in diam *H*, wire

The wounds were dressed and the fractures treated in the way already described December 11, his morning temperature was 100° F, and his pulse 100, evening, 101° F, and the pulse 150 He was given eggnog and alcoholic stimulants

December 12, his morning pulse and temperature were 145 and 99° F Evening, 140 and 97 5° F, and there were given three grains of quinine and ten minums of tincture of per-chloride of iron thrice daily, as well as one-twentieth of strychniæ hypodermically On December 15 the leg was dressed; it looked well, no pus On the 16th the arm was dressed and there was much discharge of an offensive character, because of sloughing of the soft parts

December 21 the arm and leg were dressed and were looking well At the present writing patient is able to move the arm, but owing to a wound (rendered necessary to remove a fragment of bone and wire) which has not healed, he still keeps his arm in a sling Supination, pronation, flexion and extension are being regained by him He can raise the arm to an angle of sixty degrees There are no trophic or motor disturbances of the hand, which will show that no nerves have been permanently injured



The advantages of the procedure are well illustrated in this case One muscle, presumably the short head of the biceps, lay severed on the thorax The fracture began transversely at the upper portion of middle fifth, then extended longitudinally through the capsule About two inches of the upper fragment was fractured into four nearly equal parts, the most posterior fragment extended further upward in a V shape than the rest, the most internal and posterior fragments were nearly denuded of periosteum, and were removed, the most anterior fragment was attached to the head of humerus, was partly denuded and was left for mechanical support, the remaining fragment was not denuded and was retained The sharp corners of the anterior fragment were sawed off and it was inserted to the distance of half an inch in the medullary canal and wired, the other fragment

---

[1] Two months after admission two small shell like pieces of bone, which came one from each end and the wire were removed Two months later the patient left the hospital on pass and became intoxicated refracturing the bone which had been well supported by a strong cast One month subsequent to this an inch was resected from each fragment and these were joined by one wire Only one small drainage tube was used and but three dressings were needed During the next eight months he went out at intervals on pass always returning intoxicated About thirteen months after admission evidences of union were noticeable for the first time December 25 1885 an alarm of fire led to a very rapid flight on the part of the patient without the aid of crutches The leg swelled considerably Since that time union has gone on with great rapidity

The limb has regained its usual contour There is but two and a half inches shortening the ankle is somewhat immobile but this immobility is becoming less, and the patient is able to walk short distances without a cane was left free in close apposition It will be obvious that in this case the fracture was one in which many surgeons would regard an amputation as an absolute necessity[1] (See chart and figure 2)

Third There is no extension needed, which avoids the necessity of complicated apparatus and procedures such as too often interfere with proper antiseptic dressings

Case 3 —J C, aged 27, married, Irish, was injured August 30, 1884, by a hand car from which he was thrown He struck on one foot, the car running over leg The tibia and fibula were fractured, and there was also an extensive contusion of integument and muscles The same day he was admitted to hospital (twenty miles distant from the place where he was injured) The ends of the bones protruded and were covered by coal dust The fracture involved the lower part of the middle third of the tibia, which was fractured in three portions, the smaller being triangular A piece of bone an inch by half an inch was removed from the posterior part of tibia As the contusion was extensive, seven drainage tubes were inserted The fragments were wired together The triangular piece was wired to the upper by two wires which produced a notch or V shaped depression into wh ch the lower fragments fitted, to which it was then wired The lower end of the upper fragment was denuded of periosteum The temperature and pulse changes are best illustrated by the accompanying chart The patient recovered perfectly without deformity, the shortening being less than one-eighth inch The drainage prevented any extensive swelling of the tissues which must otherwise have resulted in considerable discomfort, independently of its influence in preventing blood poisoning (See bone chart) Latter part of November patient walked about the ward and did light work

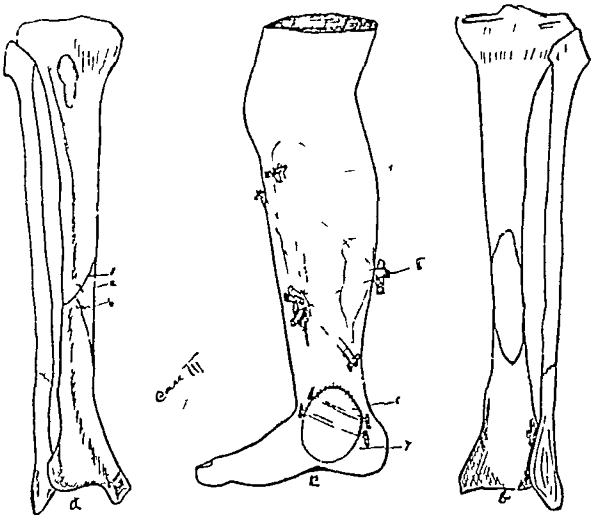
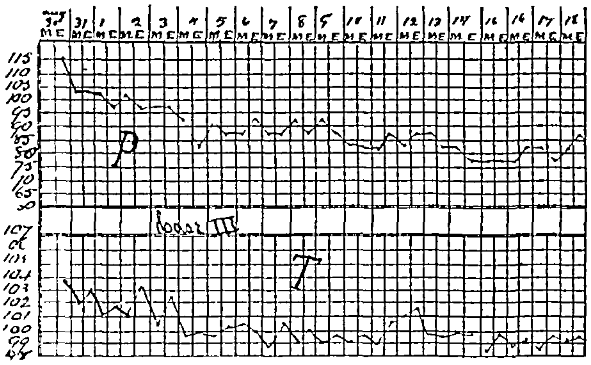


FIGURE 3 —*A* anterior view *B* posterior view *C* lateral view soft parts 1 2 3 wires 4 5 blood cavities beneath the subcutaneous tissue 6 flap of soft parts 7 position of soft parts on admission 8 drainage tube



Fourth The bones unite quicker, for reasons which will be obvious when the principles which underlie all procedures to secure union of ununited fractures are recollected

Case 4 —I S, cigar maker, aged 51, moderate drinker, compound fracture of left leg The tibia was fractured obliquely upwards and backwards, about junction of lower and middle third The upper fragment protruded through the skin two inches and was denuded of periosteum to the extent of an inch and a half The lower fragment extended upwards and backwards from two to four inches The fibula was broken two inches above its lower extremity The projecting point of bone was sawn off, as it was denuded, very sharp, and likely to injure the soft parts, and was not needed for support The fragments were wired together (several blood clots had to be removed, as the soft parts were much contused), before twisting the wires A drainage-tube was passed through the gastrocnemius The limb was then dressed in the usual way The patient recovered with one fourth inch shortening[1] (See fever and bone charts)

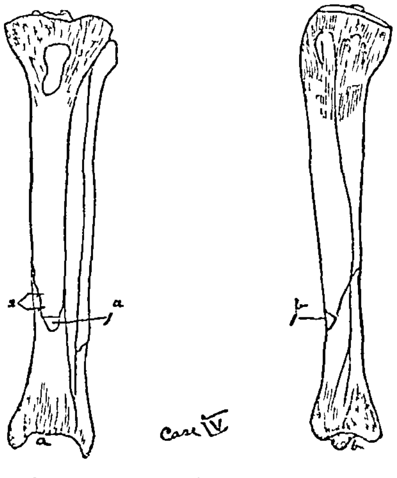


FIGURE 4 —*A* anterior view *B* lateral view 1 a, 1 b sharp point removed 2, wires

---

[1] June 20 1885 the patient was etherized and the depth of the pus pocket in the medullary canal determined to be seven inches The bone was trephined and a drainage tube inserted at the lower termination of the pus pocket The wound healed rapidly The patient spent the summer and winter between Chicago and Milwaukee, and used the arm for many purposes March 1886 he returned to the hospita and at his request two inches of bone were resected in order to so approximate the fragments as to secure union After the operation the fragments were united by two wires and drainage tubes inserted There has been no fever

---

[1] Recovery resembled that from simple fracture One-fourth of an inch shortening resulted The man is working at his trade

ments of tissue came away The fragments of bone approximated in the manner already described were denuded of periosteum, the upper fragment about an inch and a quarter and the lower about an inch, despite of this denudation, but little of either fragment exfoliated, as the denuded bone soon became permeated with blood vessels and retained its vitality There was no resection of the fibula, the upper fracture of the latter perfectly united, the lower fracture did not, and two months after admission the lower fragment was drilled and has since united At present writing the patient seems likely to have a useful limb, without more than about half an inch of shortening The limb in such a case would usually have been amputated, since the extent of the injury would have been considered too great to permit of repair for a useful limb [1]

Second Proper retention of the fragments in place is presumably secured, thus avoiding any possible danger of the fragments overriding and injuring the soft tissues

Case 2 —M S, single, sailor, 35 years old, of intemperate habits, was admitted to the Cook County Hospital on December 10, 1884 He has never had venereal troubles, but has been frequently attacked by intermittent fever, and on one occasion suffered from erysipelas The patient, while drunk, fell from a street car, sustaining a compound fracture of the skull over left eye, and a compound fracture of left humerus near neck, together with a lacerated wound of the left thigh and a contusion of left elbow

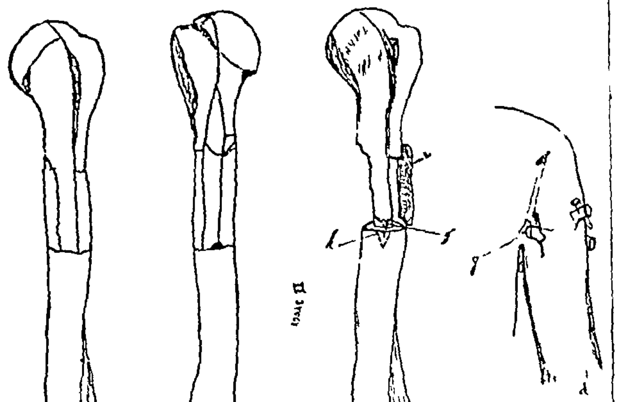
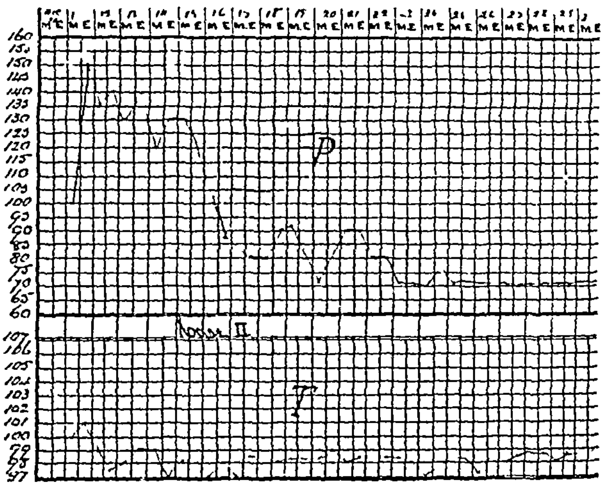


FIGURE 2 — *A* anterior view *B* posterior view *C* anterior view *D* anterior view of soft parts *F* remaining fragment. *F* dead bone removed March, 1885, and wire *G* drainage tube ¾ in diam *H* wire

The wounds were dressed and the fractures treated in the way already described December 11, his morning temperature was 100° F, and his pulse 100, evening, 101° F, and the pulse 150 He was given eggnog and alcoholic stimulants

December 12, his morning pulse and temperature were 145 and 99° F Evening, 140 and 97 5° F, and there were given three grains of quinine and ten minums of tincture of per-chloride of iron thrice daily, as well as one twentieth of strychniæ hypodermically On December 15 the leg was dressed; it looked well, no pus On the 16th the arm was dressed and there was much discharge of an offensive character, because of sloughing of the soft parts

December 21 the arm and leg were dressed and were looking well At the present writing patient is able to move the arm, but owing to a wound (rendered necessary to remove a fragment of bone and wire) which has not healed, he still keeps his arm in a sling Supination, pronation, flexion and extension are being regained by him He can raise the arm to an angle of sixty degrees There are no trophic or motor disturbances of the hand, which will show that no nerves have been permanently injured



The advantages of the procedure are well illustrated in this case One muscle, presumably the short head of the biceps, lay severed on the thorax The fracture began transversely at the upper portion of middle fifth, then extended longitudinally through the capsule About two inches of the upper fragment was fractured into four nearly equal parts, the most posterior fragment extended further upward in a V shape than the rest, the most internal and posterior fragments were nearly denuded of periosteum, and were removed, the most anterior fragment was attached to the head of humerus, was partly denuded and was left for mechanical support, the remaining fragment was not denuded and was retained The sharp corners of the anterior fragment were sawed off and it was inserted to the distance of half an inch in the medullary canal and wired, the other fragment

---

[1] Two months after admission two small shell like pieces of bone which came one from each end and the wire were removed Two months later the patient left the hospital on pass and became intoxicated refracturing the bone which had been well supported by a strong cast One month subsequent to this an inch was resected from each fragment and these were joined by one wire Only one small drainage tube was used, and but three dressings were needed During the next eight months he went out at intervals on pass always returning intoxicated About thirteen months after admission evidences of union were noticeable for the first time December 25 1885 an alarm of fire led to a very rapid flight on the part of the patient without the aid of crutches The leg swelled considerably Since that time union has gone on with great rapidity

The limb has regained its usual contour There is but two and a half inches shortening the ankle is somewhat immobile but this immobility is becoming less, and the patient is able to walk short distances without a cane was left free in close apposition It will be obvious that in this case the fracture was one in which many surgeons would regard an amputation as an absolute necessity[1] (See chart and figure 2)

Third There is no extension needed, which avoids the necessity of complicated apparatus and procedures such as too often interfere with proper antiseptic dressings

Case 3—J C, aged 27, married, Irish, was injured August 30, 1884, by a hand car from which he was thrown He struck on one foot, the car running over leg The tibia and fibula were fractured, and there was also an extensive contusion of integument and muscles The same day he was ad mitted to hospital (twenty miles distant from the place where he was injured) The ends of the bones protruded and were covered by coal dust The fracture involved the lower part of the middle third of the tibia, which was fractured in three portions, the smaller being triangular A piece of bone an inch by half an inch was removed from the posterior part of tibia As the contusion was extensive, seven drainage-tubes were inserted The fragments were wired together The triangular piece was wired to the upper by two wires which produced a notch or V shaped depression into which the lower fragments fitted, to which it was then wired The lower end of the upper fragment was denuded of periosteum The temperature and pulse changes are best illustrated by the accompanying chart The patient recovered perfectly without deformity, the shortening being less than one-eighth inch The drainage prevented any extensive swelling of the tissues which must otherwise have resulted in considerable discomfort, independently of its influence in preventing blood poisoning (See bone chart) Latter part of November patient walked about the ward and did light work

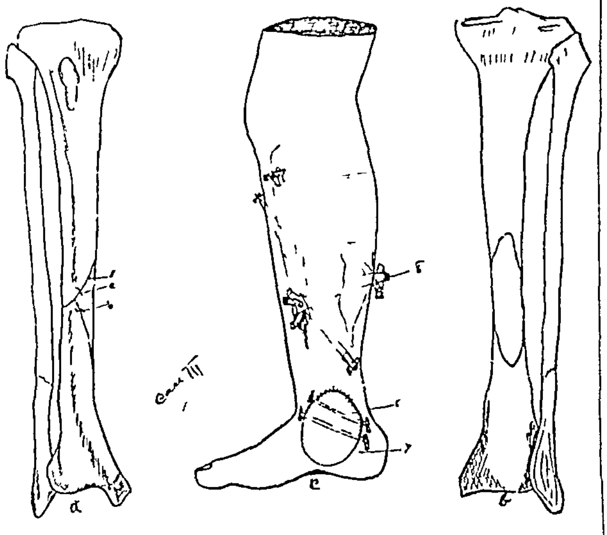
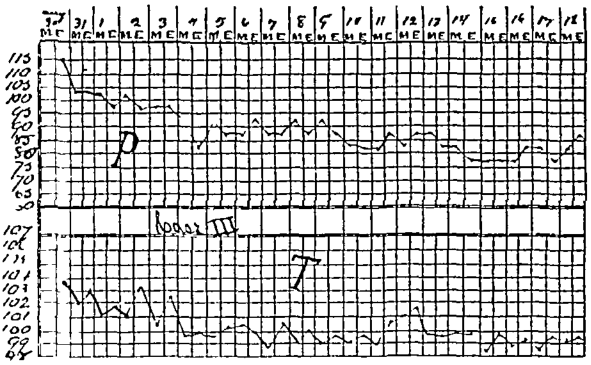


FIGURE 3 —*A*, anterior view *B*, posterior view *C* lateral view soft parts 1 2 3 wires 4 5 blood cavities beneath the subcutaneous tissue 6 flap of soft parts 7 position of soft parts on admission 8 drainage tube



Fourth The bones unite quicker, for reasons which will be obvious when the principles which underlie all procedures to secure union of ununited fractures are recollected

Case 4—I S, cigar maker, aged 51, moderate drinker, compound fracture of left leg The tibia was fractured obliquely upwards and backwards, about junction of lower and middle third The upper fragment protruded through the skin two inches and was denuded of periosteum to the extent of an inch and a half The lower fragment extended upwards and backwards from two to four inches The fibula was broken two inches above its lower extremity The projecting point of bone was sawn off, as it was denuded, very sharp, and likely to injure the soft parts, and was not needed for support The fragments were wired together (several blood clots had to be removed, as the soft parts were much contused), before twisting the wires A drainage tube was passed through the gastrocnemius The limb was then dressed in the usual way The patient recovered with one fourth inch shortening[1] (See fever and bone charts)

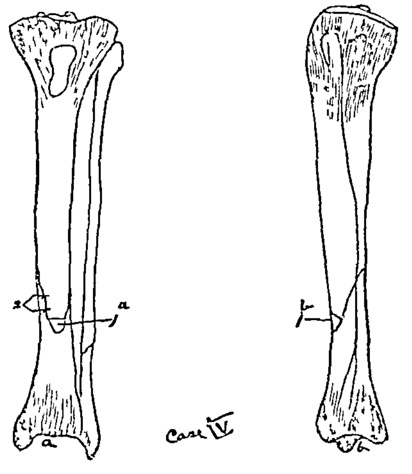
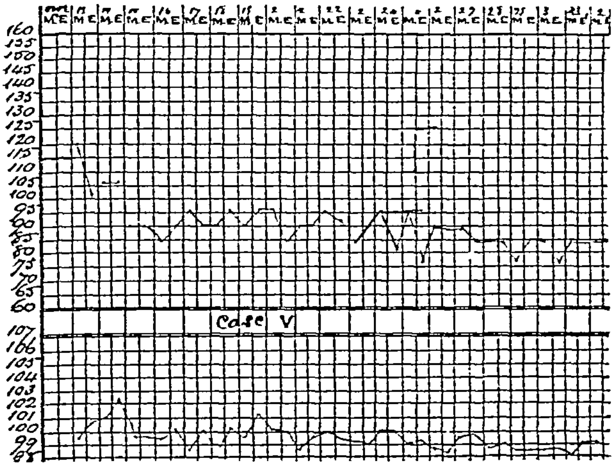


FIGURE 4 —*A* anterior view *B*, lateral view 1 a 1 b sharp point removed 2 wires

---

[1] June 20 1885 the patient was etherized and the depth of the pus pocket in the medullary canal determined to be seven inches The bone was trephined and a drainage tube inserted at the lower termination of the pus pocket. The wound healed rapidly The patient spent the summer and winter between Chicago and Milwaukee and used the arm for many purposes March 1886 he returned to the hospita and at his request two inches of bone were resected in order to so approximate the fragments as to secure union After the operation the fragments were united by two wires and drainage tubes inserted There has been no fever

[1] Recovery resembled that from simple fracture One-fourth of an inch shortening resulted The man is working at his trade



(Error in chart—should be marked IV)

Fifth As a rule, it will be apparent that there can be little if any shortening

Case 5 —G T S, married, white, aged 41, weight 225 lbs, heavy drinker, has had syphilis twenty years ago Was admitted to the Cook County Hospital November 21, 1884, having fallen from a fifth story scaffolding and struck on one foot, causing a compound comminuted fracture of right leg On examination it was found that the tibia was fractured obliquely (see cut 5), the line of fracture being four inches, and the fragments protruded markedly through the soft parts, which were very much lacerated

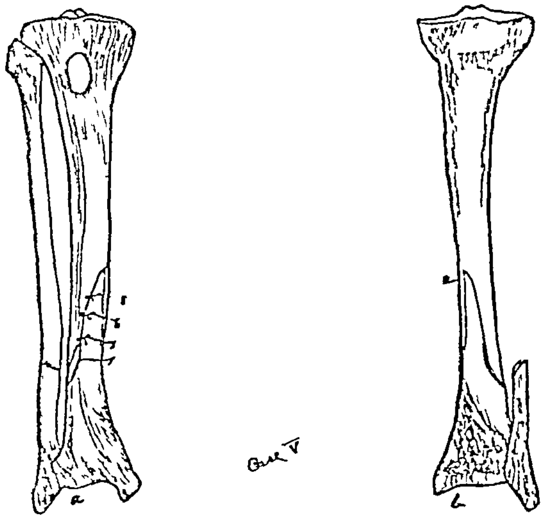
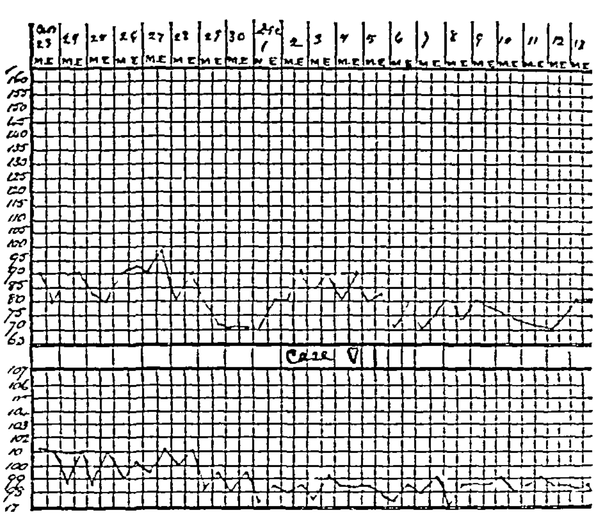


Figure 5 —A anterior view B posterior view 1 2 fragments removed on admission 5 6 7 wires

The fibula was fractured transversely and the foot could be bent at right angles with the leg without resistance This was treated in the way already described, and the progress of the case towards recovery was only interrupted November 29, by a marked sloughing of tissues around the original wound, and on December 1 more sloughing occurred, causing the loss of substance, skin and cutaneous tissue in calf of leg three inches by four The patient thereafter did well and was discharged nearly recovered April 1, there being a possibility of a small piece of bone to be removed [1] (See figure and chart)



Sixth Drainage prevents inflammation by preventing the accumulation of fluids, as in cases 1, 2 and 3

Case 6 —A S, aged 45, moderate drinker In this case the left tibia was fractured as shown in cut VI, and there was a small external opening through the integument

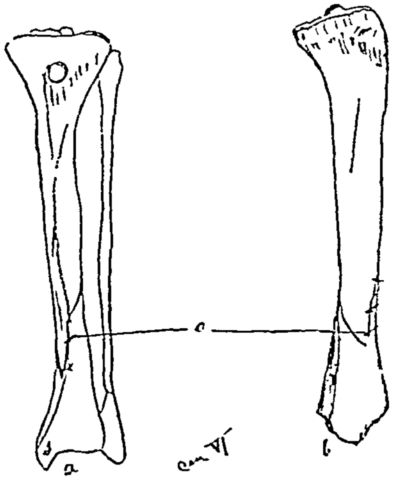
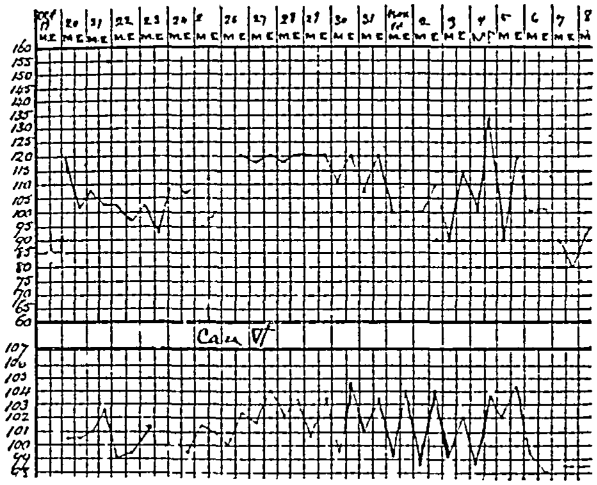


Figure 6 —A anterior view B lateral view C wire

The fragments were not comminuted, but an extensive hæmorrhage which had occurred led to an enlargement of the external wound, and showed that the posterior tibial artery had been nearly severed by a sharp point of bone The artery was tied and the fragments wired, and the wound treated in the usual way Pyæmic symptoms set in and were followed by symptoms of gangrene necessitating amputation, after which the patient made a good recovery [1]

---

[1] April 1885, patient left the hospital against advice There was an eighth of an inch shortening There was a small opening The limb had a good contour and union was apparently good as the leg would sustain much weight The patient a chronic inebriate returned within three weeks suffering from erysipelas which was followed by abscesses in thigh knee joint and leg The foot became markedly extended and ankle joint limited in motion He reëntered the surgical ward within three weeks much emaciated In an attempt to flex the foot the leg was refractured September 1885 the ends of the fragment were chiseled till the ends could be approximated and then joined by two nails Good union followed The leg tissues were flabby He has since had three recurrent attacks of erysipelas The leg muscles are much emaciated The ankle joint is rather stiff but improving The patient can put some weight on the foot Shortening one half inch



Case 7—F W B, policeman, aged 27, moderate drinker, has had venereal disease, was shot in anterior part of left leg and after injury attempted to use limb There was a circular opening about the size of a nickle, extending down to the bone, from which a slight active hæmorrhage occurred The wound was over the left tibia about the lower part of the middle third The tibia was fractured in the way indicated in figure 7 The upper fragment being split in two, and the fibula was also fractured

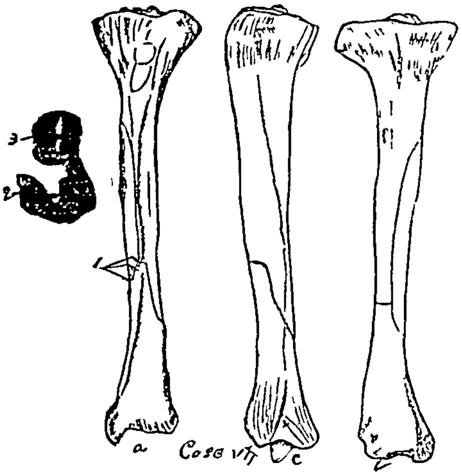
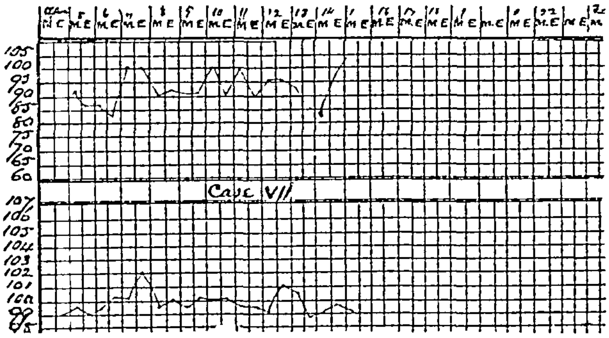


FIGURE 7—*A* anterior view *B* posterior view *C* lateral view
1 wire 2 cloth 3 bullet

A longitudinal incision was made four and one-half inches in length, through the skin to the bone, the flattened bullet and a fragment of cloth lay about two inches from where the bullet struck Very efficient drainage was made by a moderate sized tube The fragments were then wired, as in Case 3 With the exception of the parts much contused by the bullet, the wound healed by first intention The patient bids fair to make an excellent recovery [1]



Case 8—J C, white, laborer, aged 40, fractured leg, (compound) The wound was at the lower third of the leg, the tibia was fractured into five pieces, and there was an oblique fracture of the fibula The fracture communicated externally in three places

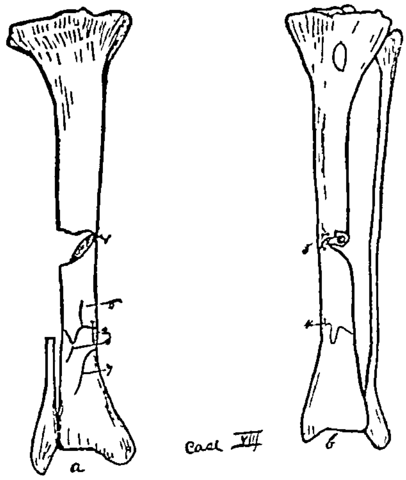
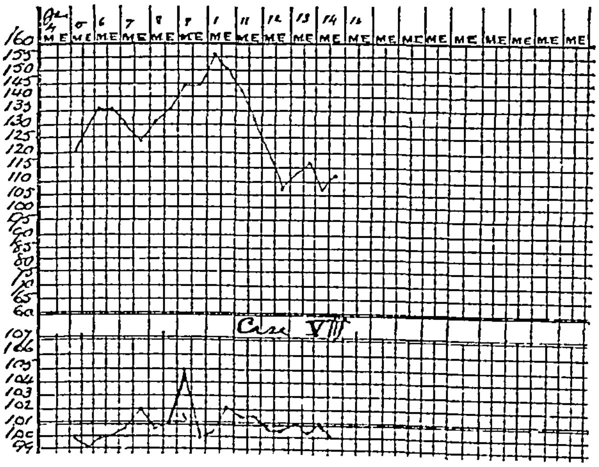


FIGURE 8—*A* anterior view *B*, posterior view 1 2 3 4 wires
6 and 7 fissures



---

[1] No further history obtained

[1] Recovered with between half and a third of an inch shortening During my absence an attempt was made to put on an interrupted cast The wires broke through the fragments became dislocated and numerous ulcers resulted from iron bar in cast Fragments re approximated and re wired

There were several loose pieces of bone removed and the parts surrounding the fracture were severely contused The fragments were wired together, but extensive sloughing of the soft parts occurred and amputation was found to be necessary five days after admission, the patient dying five days later

This case certainly does not militate against the procedure, as it would have been a desperate one under any circumstances [1] (See figure and chart)

OCCLUSION OF THE FALLOPIAN TUBE, DYSMENORRHŒA, WITH CONVULSIONS AND OPISTHOTONOS—LAPAROTOMY, RECOVERY

BY R STANSBURY SUTTON, A M, M D, LL D,
OF PITTSBURG PA
FELLOW OF THE AMERICAN GYNECOLOGICAL SOCIETY OF THE BRITISH GYNECOLOGICAL SOCIETY ASSOCIATE FELLOW OF THE PHILADELPHIA OBSTETRICAL SOCIETY MEMBER OF THE BRITISH MEDICAL ASSOCIATION PRESIDENT OF THE AMERICAN ACADEMY OF MEDICINE ETC

Mrs R, an American lady, aged 31 years, was confined with her only child in 1876 Her labor was followed with an attack of cellulitis, especially severe on the right side For seven years her menstrual periods were painful, and for the last two and a half the pain has been accompanied with convulsions Her menstrual periods became more and more trying and the pain in the right groin extending down into the leg and rendering locomotion difficult, increased in intensity from month to month After enduring this disturbance for nine and a half years, she consulted me near the end of 1885

Examination—Dorsal decubitus, perineum, partial laceration, cervix uteri, bilateral laceration Vaginal walls relaxed, cervical and vaginal leucorrhœa Neither of the ovaries could be distinctly felt The portion of the vaginal vault on the right of the uterus was tender to the touch, and to this region she referred the pain she experienced during her menstrual periods After this examination she returned home, and continued douches of hot water and counter-irritation over the right inguinal region until February 8 1886, when she became an inmate of my private hospital She reported that her distress at the time of her menstrual periods had increased since her visit to me near the close of the preceding year Ten days after her admission she menstruated, and the pain she experienced during this period resisted all reasonable doses of morphia administered subcutaneously An examination during the flow discovered, in the right side of the pelvis, a mass as large as a guinea egg and extremely sensitive Morphia hot douches, local blisters and rest in bed were persisted in during the continuance of the flow, and when it ceased, it left her lame in her right leg for several days Three days after the termination of the flow, the mass discovered a few days previous could not be felt

Nine days subsequent to the cessation of the menses and after six of comfort, the pain in the right inguinal region returned, it extended down the leg on that side and rendered locomotion difficult and painful Bimanual examination revealed the mass again present, situated on the right of the uterus and almost directly behind the external inguinal ring It was not as large as it was during the flow, but fully as painful to the touch Three days later it had again disappeared Churchill's tincture iodine was liberally used over the vault of the vagina, local blisters applied, the hot douches were doubled in number and quantity and the temperature of the water raised to 115–120°, and absolute rest in bed required On the morning of March 14 her second menstrual flow came on unannounced by pain Twenty four hours later a sudden invasion of agonizing pain occurred, and before sufficient morphia to relieve her sufferings could be administered, she had six convulsions, and stood on her head and heels, her body arcuate—perfect opisthotonos Within a few hours nearly 2 grains of morphia were administered subcutaneously, producing no apparent effect Fearing a fatal result from the exhibition of the narcotic, chloral hydrates and bromides in large doses were substituted The hot douches were continued and a blister applied over the right inguinal region The mass in the pelvis was now apparent to the touch and very sensitive to pressure On March 19, after four days of severe suffering, the flow ceased, and in three days more the mass in the pelvis had again disappeared

Diagnosis—I could make none Chronic cellulitis, recurring attacks of acute cellulitis, or local peritonitis was evident, but why? Was there pus, or blood in the tube? Possibly, but why no evidence except the pain and the mass alternately appearing and disappearing? Her leucorrhœal discharges might contain pus, I did not delay to examine with the microscope, this I could do afterwards I reasoned that this trouble was of long standing, steadily and rapidly increasing, and I decided to open her abdomen, discover the cause, and do all I could to save the life of the lady I agree with Mr Tait in the matter of opening the abdomen for exploration in certain cases A diagnosis without this is not always possible, and the surgeon who delays operation until a diagnosis is made, will be often in error, and his usefulness is limited

On the 22d of March the bowels of this woman were cleaned out, and on the 23d, at 2 P M, she was placed on the operating table and anæsthetized by the second nurse Dr Stone, my assistant, being necessarily absent, I assigned my chief nurse to his place I then proceeded to open the abdomen with an incision a little short of three inches, and discovering a difficult operation awaiting me, I lengthened the incision to five inches Through this I turned the intestines out upon a towel above the upper angle of the opening, and gave them into the care of the nurse An adhesion on the tip of the omentum was detached from something in the pelvis I then discovered that the ovary and tube on the right side were firmly adherent to each other, to the broad ligament and the roof of the vagina, with great difficulty they were released with the fingers and drawn into view The pedicle was secured with Tait's knot, and the ovary and tube cut away. The left ovary was small, and both it and the tube appearing to be free from disease, they were not disturbed. The cavity was cleansed, the intestines replaced, the wound closed and the patient returned to bed. Carbolic acid did not touch the patient during the operation, and scalding water alone was used for the instruments and ligatures. The technique as pertaining to cleanliness was satisfactory. Drs. Lee, of Rochester, N. Y., and T. B. La Rue, of Smith's Grove, Ky., were present as visitors and witnessed the operation. I follow Mr. Tait in relying alone on hot water. No carbolic acid touches my patients.

---

[1] *The patient's breath* on admission smelled of whisky and during his entire hospital sojourn he appeared dazed The tissues were bleeding but sloughing did not seem likely to occur the shock from an amputation would have been greater than from the procedure adopted We had no post mortem urine was not tested exact cause of death not known

Examination of the parts removed.—The ovary was twice the ordinary size and cystic. It contained a large proportion of healthy ovarian stroma, which was here and there crossed with fine lines of gritty tissue. An empty ovisac lay beneath the surface, ruptured, and proved that true ovarian action existed immediately prior to the operation. The tube was entire, with the exception of the fimbriated end; this was torn and a small portion of it absent. It exhibited the usual appearance, except a redder color. Its calibre was normal, except at the ulterior end, where it was occluded by a stricture so complete that the head of a needle used as a probe could not be passed through it.

Rationale of symptoms.—The stricture in the tube doubtless arrested the ova, and to some extent accounts for the symptoms, but, in my judgment, had the ovary been free, this would not have caused pain. The ovary was bound to the fimbriated end of the tube and the surface of the broad ligament, and at the menstrual periods, its physiological increase was impeded; its products were imprisoned in the surrounding tissue, and the pain was largely caused by the pressure thus produced. During menstrual activity the mass appeared, and disappeared when it subsided. Its recurrence subsequent to the cessation of the flow, I suspect, was due to the excitement in the ovary during ovulation, which certainly occurs independent of menstruation.

Result.—On the day following the operation, the pulse was 108, and the temperature 100¼°; the next day both the pulse and temperature fell below 100. On the fourth day the stitches were removed. On the morning of the fifth day the pulse was 74, and the temperature 99°. On the morning of the sixth the pulse was 65, and the temperature 98½° (Fahrenheit). No farther rise in the temperature occurred, and her progress was rapid. From this date no further attention than that given by her nurse was required. She left the hospital for home on April 16; she had not as yet menstruated.

Remarks.—Does this case prove that, as gynecological surgeons, we are too aggressive? Does it prove that exploratory operations are useless and dangerous? So long as proper precautions as to place of operating and environment are observed, such operations will bring neither harm to the patient nor obloquy to the art. Of my last forty-one abdominal sections, none has given me less anxiety and more pleasure than the one just described. A new lease of life is this woman's reward for her confidence in me and my regard for duty.

NINE CASES OF IMPERMEABLE URETHRAL STRICTURE TREATED BY ELECTROLYSIS

BY WM. T. BELFIELD, M.D.,
GENITO-URINARY SURGEON TO THE COOK COUNTY HOSPITAL, CHICAGO.

The removal of urethral stricture by a galvanic current is a method of treatment whose merits and advantages have been generally ignored by specialists as well as by general practitioners. In very few of the standard text books is this method even mentioned, and in none that I have seen is it intelligently discussed. A few physicians have, at various periods in the past thirty years, briefly tried and then abandoned the current; and the report of their failures had deterred others from further investigation.

Unfavorable and even disastrous results have undoubtedly been produced by electrolysis; but they have generally been caused by the use of an improper current. To dissolve the cicatricial tissues constituting a stricture only the chemical, dialytic effect of the current is required or desired. Now the galvanic current liberates heat as well as chemical force; it will not only decompose a chemical compound, but will also raise a platinum wire to a white heat. The ill effects of the current observed in the urethra have evidently been produced by the heat; as formerly applied, the treatment of stricture by the current was in effect merely a cauterization of the urethra, which resulted of course in severe local inflammation and even extensive sloughing. Yet by proper management a galvanic current can be made to produce a strong chemical effect with an insignificant minimum of heat; or, in technical language, to produce great *intensity* with but little *quantity*. To this end the plates should be small and the fluid weak, but a number of cells (6 to 15) should produce the current.[1] To Dr. Robert Newman, of New York, is due great credit for urging upon the profession the proper use of the current for electrolysis.

During the past two years I have practiced electrolysis for stricture upon thirty-seven patients; and I now use it almost exclusively except for strictures located within an inch of the meatus, and for strictures of large calibre elsewhere in the penile urethra (which I divide with Otis's urethrotome). In my experience the advantages of this method may be summarized as follows:

1. It is applicable to strictures at any point in the urethra.
2. Any stricture or succession of strictures, however rigid and cartilaginous, however long and tortuous, however tight (even if impermeable), can be readily and safely perforated.
3. As a rule it causes no pain nor bleeding, is followed by no chill nor urethral fever, and it is always devoid of danger.
4. When properly handled it can produce no false passage nor other local lesion.
5. The effects are more enduring than those of either cutting or stretching; whether or not they are permanent (as maintained by Dr. Newman), my experience does not yet enable me to assert.

---

[1] For the past year I have used with great satisfaction the complete and compact portable battery made by the McIntosh Company, 300 Dearborn Street, Chicago.

Even in the treatment of permeable strictures, therefore, electrolysis is generally far preferable to the usual methods, urethrotomy and dilatation Thus internal urethrotomy should never, under any circumstances, be performed in the membranous urethra, if made in the penile portion when the stricture is very tight, or very long, or very firm, the operation is usually followed by severe fever and local inflammation, occasionally even by death Dilatation is unsatisfactory—aside from the attendant pain and tendency to induce urethral fever—because its effects are transient, and especially because it is inefficient in numerous cases We are often called to treat men of middle or advanced age suffering from old and rigid strictures, which are perceptible from the external surface as large, irregular, cartilaginous masses Every attempt to dilate in these cases is apt to cause a chill and fever, and when this has subsided the surgeon finds the stricture just as rigid and as tight as before Electrolysis removes these strictures without producing urethral fever

There are, however, numerous cases of stricture for which electrolysis is not merely preferable to urethrotomy and dilatation, it is, indeed, the only treatment practicable These cases may be divided into three classes

1 Impermeable strictures without complete retention of urine I have treated four such cases where the strictures were impermeable to even the finest instruments, though the patients were still able to force a little urine through them In each case a No 12 French bulb was passed into the bladder without difficulty, and the patients were immediately relieved from the annoying frequency and pain of urination In none of these cases did any chill, urethral fever or other constitutional disturbance follow the operation

2 Impermeable strictures with complete retention I have treated by electrolysis three such cases, in each of which the bladder was distended to or above the level of the umbilicus One was a traumatic stricture following rupture of the membranous urethra by a blow upon the perineum, in one of the others the strictures (of gonorrhœal origin) were scattered along the urethra from meatus to prostate In each of these I succeeded in passing a No 10 bulb (French) into the bladder at the first sitting, and to insert a catheter immediately *Each of these patients was therefore saved from a perineal section, which would otherwise have been inevitable* One of the three, who had an elevation of temperature previous to the operation, experienced a severe chill and violent fever within the first twenty-four hours, but was entirely recovered on the third day The other two showed no reaction

3 Tight and rigid strictures (permeable or otherwise) with perineal or scrotal fistulæ I was privileged to see and report a most interesting case of this sort treated by my friend Dr Truman W Miller A man 34 years old presented himself to Dr Miller suffering from numerous rigid strictures involving nearly the whole urethra from the middle of the penile portion to the prostate, not even a filiform bougie could be made to enter the bladder The perineum and scrotum were literally honeycombed with fistulæ, there being, according to the patient's census, twenty-seven openings, through which urine was discharged as if from a watering pot, scrotum and perineum were thickened and indurated The patient was compelled to urinate every half hour or less, rising fifteen to eighteen times at night He had been under treatment by different surgeons for five years, had submitted to both external and internal urethrotomy, as well as numerous attempts at dilatation For two years past he had been an invalid, devoting his whole time and attention to constant efforts at emptying the bladder At the first sitting Dr Miller passed a No 10 bulb (French) into the bladder, the patient experienced no febrile reaction, but for the first time in several years passed a fair stream from the meatus The urine no longer flowed through the fistulæ, and the patient was compelled to rise only once or twice at night At a second sitting a No 12 French easily entered the bladder

The permanence of effects produced by electrolysis is indicated in the following case In February, 1885, a young German was admitted to the County Hospital, suffering from complete retention of urine caused by an impermeable traumatic stricture of the membranous urethra I performed perineal urethrotomy without a guide, and passed a No 14 sound (English) into the bladder Patient recovered nicely, but in spite of the regular passage of sounds, the stricture rapidly contracted again, until in May (three months after operation) it scarcely admitted a No 4 I then commenced using upon it the galvanic current, and in six sittings raised the calibre to No 12 English Since that time (July 1, 1885) he has experienced no difficulty in urinating, and his urethra readily admits No 11

612 Opera House Block

A CASE OF SYMBLEPHARON OF THE LOWER EYE-LID, WITH OPERATION[1]

BY ARNOLD P GILMORE, M D,

OF CHICAGO, ILL

My patient, Mr Shirley, has kindly consented to appear before the Society this evening He belongs to that large class of persons who suffer from burns caused by caustics, hot metals, etc, and has what may be called complete symblepharon of the left lower lid His case is of interest, I think, to those who do work in plastic surgery, and more particularly in surgery involving tissue that has been burned, and has consequently become cicatricial

The tissue af the eye-lid is such that very slight injuries will cause disturbance of its functions, and deformities This is particularly true of injuries due to burns Mr Shirley's left eye was severely burned with hot iron four years ago He was treated by a layman for two weeks, and then consulted an oculist The lid had by this time grown fast to the eye ball to a considerable extent Some operation was performed, but no permanent benefit followed The operation was repeated three times at intervals of several weeks, the lid being detached each time and some plastic operation performed None of these operations proved to be successful

---

[1] Read before the Chicago Medical Society, March 15 1886 with exhibition of patient

I first saw the patient about nine months ago The entire lower lid, from external to internal canthus, was then adherent to the eye-ball, covering almost the entire cornea, save a small portion at the upper margin This triangular-shaped tissue was covered by a pale membrane, neither a true skin, nor a true mucous membrane, and I found upon cutting into it that it was composed of cicatricial tissue, very dense and difficult to separate

My first operation was performed under cocaine, which was ineffectual for so extensive a dissection, and the patient was very restless, increasing greatly the difficulty of the operation I detached the lower lid and transplanted the conjunctiva of a rabbit to the eye ball For six weeks this operation was apparently successful At this time I left the city and was absent about two months On my return I was amazed to see the lid fast assuming its original location on the eye ball

Six weeks ago I performed the second operation, under ether I made a thorough dissection, freeing the lid entirely, and making a deep cul de sac This, as you see, would leave the upper half of the eye-ball covered with mucous membrane, and the lower half uncovered I then dissected a semi-circular band of conjunctiva, about one-third of an inch wide, around and close to the cornea above, leaving a bridge at each end This band I dropped into the cul de sac below and carefully stitched it to the ball

In order to prevent adhesions, for it is characteristic of this cicatricial tissue to grow underneath and crowd out everything above it, I anchored a silver rope an eighth of an inch thick and one inch long in the bottom of the cul de sac by bringing a free strand from either end of this rope through the cheek and tying them together In spite of this, there was a tendency to form adhesions at both canthi I threw a silver ligature around these adhesions, and tried to slowly constrict them But the process was slow and painful, as well as very doubtful I then had a semicircular plate of silver made, long enough to fill the space between the external and internal canthi, with two holes at the circumference one-half inch apart, which I threaded with silver wires I removed the silver rope, which had, by the way, become encysted, and its removal was attended with considerable bleeding and pain I cut all adhesions and sunk the silver plate into position by bringing the wires through upon the face and fastening them by small lead plates and perforated shot I claim priority in this method of fastening the plate

The object of this operation is neither the improvement of the appearance of the injured eye, nor to restore its vision, but to relieve the irritation of the other eye As may be readily understood, if one eye ball is securely anchored to the lid the coordinate action of the two eyes is interfered with, and the sound eye becomes weakened In this case, in order to preserve the health of the other eye, it had become absolutely necessary either to free the eye ball or enucleate it

There were two good reasons why I did not advise enucleation 1st There is enough clear cornea in this eye to make a small artificial pupil, if he should ever lose the sight of his right eye 2d He could never wear a glass eye, and he would be disfigured to that extent

Only very slight reaction followed these operations, and at no time has there been much pus I used cold water compresses and kept the wound perfectly clean The sound eye has grown stronger in the last few days, in spite of the presence of the silver plate, and I am encouraged to believe that the result of the operation will be good

MEDICAL PROGRESS

VIBURNUM PRUNIFOLIUM (BLACK HAW) IN ABORTION AND MISCARRIAGE —MR JOHN HENRY WILSON, of Liverpool, says "In the number of the *Liverpool Medico-Chirurgical Journal* for January, 1885, I reported six typical cases treated successfully by this medicine, and since then, after considerable experience, I have been more and more confirmed in its value I cannot say it has always succeeded, but in those cases in which it failed, I have been able to account for its doing so Either the medicine has not been commenced in time, and the ovum has been detached before the viburnum has been taken, or there has been some reason to suspect a syphilitic taint, and, in a case of fatty degeneration of the placenta, after not succeeding with the viburnum alone, chlorate of potash was taken in addition, with a good result

Dr Napier says "some women abort on the slightest provocation," and they continue to do so, although every care may have been taken in the way of rest, medicine, etc, to prevent it I have had many such cases, and have been greatly disappointed, but when I have had the opportunity of commencing the viburnum shortly before the anticipated period, and continued it at intervals on the first appearance of threatening symptoms, these patients have invariably gone on to the full time, and done well, without being subjected to restrictions or debarred from active exercise

In the next class of cases, where there may be reason to suspect even a partial separation of the ovum and a dilated external os, with severe pains and hæmorrhage going on for hours, and the patient under the impression that she could not possibly go on to her full time, and when I had almost despaired of any benefit from the medicine, I have been astonished at its effect, more than three fourths of these cases doing well

The most sanguine advocate of viburnum could not expect it to do impossibilities, or to prevent abortion when there is "a gaping os, and a detached ovum presenting" One might as well expect to resuscitate a dead body by galvanism I have never seen ill consequences follow the administration of the medicine, however often the dose has been repeated In two cases only has it been followed by slight headache. One patient inquired if she had not been taking quinine. The symptoms had been relieved, therefore it was not continued. In the other case, the patient had taken 4 grains of the extract every two hours. The only change was to extend the interval to four hours, and then gradually discontinue it. Some patients have taken viburnum at intervals during the whole course of their pregnancy. It seems to act as an uterine tonic and sedative, and to relieve the woman of those harrassing nervous forebodings which often lead to abortion. The patient, after taking only a few doses, has quite a changed expression. From a drawn, desponding look, her countenance becomes cheerful and happy. Since I have prescribed viburnum, it has not been necessary to keep the women in the horizontal position more than a few days, whereas, under the old treatment, they occasionally spent weeks in bed, and, after all, abortion has taken place. On some of the plantations in America, it is the popular belief that a woman cannot abort if she be under the influence of black haw, although she may be taking medicine with a criminal intent. My experience would go far to confirm that opinion, for I have had patients in whom a succession of abortions have taken place, but, when under the influence of the medicine, they have been able to resist the severest tests—frights, falls, strains, etc.—and no ill effects have followed.

With regard to the mode of administering the drug: at first, the liquid extract was ordered, but the smell was so strong and objectionable that the whole house became impregnated, and in two cases, where the stomach could not retain it, the liquid was given as an enema. I now order the extract in pills of 4 grains, and find it a convenient form, as usually made, they soon absorb moisture, and run into a mass, but I now advise them gelatine coated. These pills keep any length of time, and I advise my patients to keep a supply by them. I have such confidence in viburnum prunifolium that I am anxious the profession should give it a trial, feeling assured they will not be disappointed.—*British Medical Journal*, April 3, 1886.

THE TRACTION TREATMENT OF MORBUS COXARIUS.—DR. LANNELONGUE, Surgeon at the Trousseau Hospital, recently read notes before the Paris Surgical Society on the method of traction by the application of weight and continuous extension in treating articular affections, especially strumous hip joint disease. Le Sauvage, of Caen, described in 1830 this method of treatment, but the American surgeons were the first to realize its importance, and to endeavor, by the aid of different apparatus, to keep the head of the femur from contact with the acetabulum. A child, 4 years old, in M. Lannelongue's wards, died in the early stage of hip joint disease, its limbs had been under the influence of extension since Oct. 22, 1885, a weight of two kilogrammes, increased to three, had been employed. The apparatus was removed four days before the child's death from croup. An experiment on the dead body was made during a severe frost, and the body was perfectly preserved. The pelvis was separated from the trunk and fixed to a plank by nails, the vertebræ and the ilia being firmly secured. The hip joint was left thoroughly free, so that flexion, extension, and rotation outwards could be effected without hindrance. Extension was practised as on the living body. The weight attached was four kilogrammes. The experiment commenced at 10.30 A.M., and was continued until 7 P.M. Rigor mortis was absent. The operating room was heated to about 77° Fahr. The limb was frozen with salt and ice, and afterwards with salt and hydrochloric acid. At nine o'clock next morning, the limb was as hard as wood. A section was made with a saw in the direction of the neck of the femur. The relations of the contiguous parts were not disturbed. It was easily observed that the articular surfaces were not in contact with each other, there was an interval of half a centimètre between them and the centre of the joint at the highest point. The cartilage of the head and the lower part of the articulation were in contact. The capsular ligament was strained over the head of the femur, and lay close against it, but in the upper part, the space existing between the articular surfaces was filled with a soft fungoid growth. The head of the femur had slipped downwards, one half, which was not flattened like the upper part, but rounded, lay beyond the cotyloid cartilage. This experiment showed that the separation of the articular surfaces was an actual fact. It must be remembered that this result was due to the application of extension forty five days before death, not to that practised on the dead body. Nearly the entire capsular ligament had degenerated into fungoid growth, and was unable to resist the influence of traction. M. Verneuil said that M. Lannelongue's experiment explained a fact that had recently come under his notice. On examining a patient with a very severe form of hip joint disease, he observed that the limb was shortened, and that the great trochanter was displaced upwards. He supposed that there was incomplete dislocation, and decided on practising resection. He then found the head of the femur lying in the acetabulum. It must be concluded that, at a certain period of this disease, the femur becomes deformed, and presents the characteristics of partial dislocation. In future, an apparent shortening, even of three centimètres, accompanied by a moving upwards of the great trochanter, should not warrant the conclusion that the head of the femur is really dislocated.—*London Medical Record*, March 15, 1886.

PAPAIN IN DYSPEPSIA.—DR. GEORGE HERSCHELL, in a note on this subject, says that he finds papaïn chiefly valuable in the following classes of cases:

1. *Chronic Stomach Catarrhs of Children.*—Every one of us is familiar with that state in which we find children at times, and which is very frequently called "biliousness." It is characterized by loss of appetite, languor, pasty complexion, loss of sleep at night, and irritability during the day. There is frequently frontal headache, and the urine is loaded with lithates. If this state continue for any length of time the child emaciates, the unhealthy mucus which sheathes the stomach and intestines preventing the due absorption of the food. Cod-liver oil and compound syrup of

the phosphates, which are generally given for the complaint as soon as the child begins to lose flesh, are not assimilated Sometimes a cough develops, and the child is supposed to have incipient phthisis I have found these cases rapidly improve with the following prescription

℞	Papain (Finkler)	gr ½–gr j
	Sach lactis	gr j
	Sodii bicarb	gr v
	M To be taken after every meal	

It is also advantageous to give a drop or two of tincture of nux vomica immediately after the meal in a little water The papain probably acts by dissolving the mucus, and thus facilitating the absorption of the food

2 *Acid Dyspepsia* —This drug is extremely valuable in this form of indigestion *a* As it acts equally well in the presence of an alkali, a sufficient quantity of bicarbonate of soda may be given with it to neutralize the excess of acid in the stomach without impairing its peptonizing power *b* Its antiseptic action checks the abnormal fermentation to which much of the accompanying flatulence is due *c* An antiseptic can be given with it to increase this action I usually order it in the following manner

℞	Papain (Finkler)	gr ij
	Sach lactis	gr v
M	To be taken an hour after meals with the following draught	

℞	Sodii bicarb	gr xv
	Glycerin acid carbolic	m viii
	Spirit ammon aromat	m xx
	Aq ad	℥iss
	M Fiat haustus	

It appears that, taken one hour after a meal, a smaller dose of papain is required to produce the same result than if taken with the food

3 *Cases where Severe Gastric Pain coming on Shortly after Eating is the Prominent Symptom* —I have tried the drug upon twelve cases of this nature Complete relief was given in ten, one case was partially relieved, and one completely failed to derive any benefit

Apart from its internal use, papain will probably come into extensive use as a peptonizing agent, to prepare ready digested food and enemata, in the way in which pancreatin and pepsin are used at present —*British Medical Journal*, April 3, 1886

CORROSIVE SUBLIMATE IN DIPHTHERIA — DR WERNER, medical officer to a circumscribed factory population of about 2000 near Narwa, in the Gulf of Finland, writes in the *St Petersburger medicinische Wochenschrift* describing the satisfactory results he has obtained in diphtheria by treatment with perchloride of mercury internally, combined with ichthyol inunctions The disease is very frequent and fatal in the locality, he having attended during the last six years ninety cases, the average mortality of which was between 60 and 70 per cent, the majority succumbing from general weakness when the local affection was passing off or after it had quite disappeared Last year the type was peculiarly severe In July, August, and September eleven cases occurred, of which no less than nine proved fatal From the end of September to the present time, however, during which period there have occurred seventeen cases, all of which were treated with perchloride of mercury, and many of which were very severe, there were only two fatal cases, neither of which was seen till a few hours before death The author's method is as follows For young children he dissolves a quarter of a grain of the perchloride in 4 oz of water, for children of 6 or 7 half a grain in 6 oz of water, and for adults three quarters of a grain in 8 oz of water This solution is given to the patients while they are awake every twenty or thirty minutes, in measured doses, so arranged that the quantities made up shall last from twenty to twenty-four hours—*i e*, about half a drachm in the case of young children and a drachm in that of adults When a good deal of sleep is obtained larger doses are given at longer intervals As a rule only milk is allowed as nourishment If considerable pyrexia exists, an enema of from ten to thirty grains of antipyrin, according to the age of the patient, is given, the rectum having been previously cleared out Externally ichthyol is diligently rubbed in over the swollen glands three or four times a day, the fingers being wetted with water when dry to permit of the rubbing being continued for some time For the first two days of this treatment the local affection usually undergoes no improvement, but on the third day it begins to diminish and the general condition becomes better, the appetite increasing and the children regaining their wonted spirits In no case did the author meet with the extreme debility which was frequent in cases treated by pilocarpine, even when the local affection was decreasing As the patients approach convalesence the medicine was diminished, so that more than six bottles were never required Complications never occurred, though three of the patients had previously had scarlatina —*Lancet*, April 3, 1886

CALOMEL AS A DIURETIC —JENDRASSIK has used calomel with excellent results in the dropsy of heart-disease In six cases, comprising twenty four separate experiments, diuresis occurred twenty-three times, the maximum daily amount of urine varying between 2,100 and 9,500 cubic centimètres (95 to 339 ounces) The amount of diuresis depends on the dose of calomel given As a rule, the dose was 0 2 gramme (1½ grain), three to five times a day The diuresis did not appear till after the administration of the drug for one day, and lasted as long as the œdema was present Unfavorable symptoms noticed were a metallic taste in the mouth, salivation, and stomatitis, but it is important, the author says, that the diuresis appears before the onset of diarrhœa caused by the drug The urine contains an excess of chlorides, hyaline casts are often seen In a case of pleurisy, with effusion, calomel had no effect on the urine As to the mode of action of the drug in cases of cardiac dropsy, the author says that it can hardly be through the heart, which is only secondarily and slightly affected by calomel It is probably through the kidneys, a sort of diabetes insipidus being established As precautions in the employment of this mode of treatment, small doses of laudanum combat incipient diarrhœa, and for the stomatitis a mouth-wash of chloral of potash is prescribed from the first Though no harmful action on the kidneys was noticed, a caution is given against employing this treatment in disease of the kidneys —*London Medical Record*, March 15, 1886

A Test for Sugar in the Urine —A Philadelphia correspondent of the *Atlanta Medical and Surgical Journal* states that it might be of interest to mention a convenient substitute for Fehling's solution in testing for sugar in the urine The ordinary solutions deteriorate on keeping, and are liable to throw down the sub oxide of copper themselves if not freshly prepared Prof Holland, of the Jefferson Medical College, recently gave the following test fluid, which is very efficient, is easily prepared, and is not spoiled by keeping

GLYCERINE CUPRIC SOLUTION

℞ Cupric sulphate ʒj
Glycerine fʒj

To make the test add five drops of this solution to one drachm of liquor potassæ, in a test-tube Boil a few minutes to test the purity of the fluid, should it remain clear then add a few drops of the urine If glucose be present in quantity there is at once thrown down a red precipitate, just as in the ordinary Fehling's test To detect minute amounts of sugar, not shown by above procedure, after making the test as above, add half a drachm of urine, boil and set aside If sugar be present, even in very minute quantity, the liquor, as it cools, will turn to an olive green color and become turbid —*The College and Clinical Record*, April 1, 1886

The Metallic Suture in Fracture of the Patella —At the close of a paper on this subject Dr Frederic S Dennis, of New York, draws the following conclusions

First—In compound fractures of the patella there is not the slightest question as to the propriety of the operation of wiring the fragments Fowler's cases, James's, and my own, bear undisputed testimony in corroboration of this statement

Second —In recent and old fractures, with the full permission of the patient and under the strictest antiseptic precautions, the operation, in the light of present statistics, is wholly justifiable

Third —In debilitated patients, and in those suffering from any organic disease, the operation should not be employed, and is, in fact, contra indicated, as all other operations of expediency

Fourth —It is not an operation which can be indiscriminately performed, and never by an ordinary practitioner with little surgical experience and with little faith in the germ-theory of inflammation

Fifth —The success of this operation depends wholly upon conscientiously carrying out the smallest detail in aseptic surgery, and the surgeon who is not imbued with the true spirit of antiseptic surgery is guilty of a criminal act toward humanity if he attempts this operation

Sixth —While the number of cases yet operated upon is too limited to admit of deductions by means of which a final settlement of this question can be made in the minds of surgeons, the future practice of the surgery of America, the birthplace of this operation, and the practice of other countries, will soon enable us to condemn it as an unsafe and unjustifiable procedure, or else it will raise it to a pinnacle from which we can recognize one of the grandest triumphs of our art —*New York Medical Journ* , April 10, 1886

Cholera and Neuroparalytic Keratitis —The distinguished oculist, Dr Aguilar y Blanch, contributes to the *Cronica Medica* of Valencia a paper on cholera and neuro paralytic keratitis His conclusions are these 1 Cholera may give rise to a disturbance of the visual apparatus 2 This is most apt to occur in the comatose form of the disease 3 Children, and individuals with little organic resistance, are most affected 4 The poor and ill-fed give the greatest contingent of patients 5 The ocular affection is characterised by a neuro paralytic keratitis 6 In the majority of cases, both eyes are affected 7 It follows the ordinary phases of this form, *i e* primary molecular mortification of whitish color becoming yellowish, extending superficially rather than in depth, disintegration of the elements in its centre, perforation, hernia of the iris, total mortification of the corneæ, phlegmon of the eye 8 The point affected is always the centre of the cornea, from whence it extends after previous infiltration 9 The disease yields promptly, if taken in the early stage and with appropriate treatment 10 The treatment consists in hot fomentations, bandage, eserine, iodoform, and tonics —*London Medical Record*, March 15, 1886

Treatment of Peri-uterine Hæmatocele by Means of Negative Galvano Puncture —At a recent meeting of the *Association Française pour l' Avancement des Sciences,* Apostoli described this method as follows The chemical-caustic action of the continuous current is utilized in making an opening into these tumors The opening thus made is, in character, a non-retractile fistula, with tendency to remain open, and with adhesions between the pathological cavity and the external mucous membrane The depth of the fistula varies with the intensity of the current strength The advantage of this method is that, on account of the adhesions formed, the danger of opening is lessened, and the cicatrix left by the negative eschar is slight and non contractile A further after effect of this method of utilizing the chemical caustic action of this current is that the nutrition of these pathological cavities is modified, leading to rapid retrograde metamorphosis Apostoli has treated one case by this method, and the excellent result obtained leads him to the following general conclusions The method is safe, quick in action, and modifies the usual prognosis The method is, in action, double—it has a surgical effect and a medical effect It is applicable alike to hæmatocele, abscess, fibromata, interstitial myomata, extrauterine cysts —*American Journal of Obstetrics*, April, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY, APRIL 24, 1886

THE PHYSICIAN AND HIS CULTURE

An English contemporary, in a recent note under this title, quotes Sir Robert Christison as an authority that Latin and Greek cannot be dispensed with in the education of one who hopes to be a successful physician, and that medical nomenclature, so largely of Greek and Latin derivation, cannot dispense with the ancient languages and rely upon Saxon words, and few, we think, will take exception to these propositions Just how well versed in the classics the physician should be, however, is a point which Sir Robert does not discuss, nor will we until something has been said regarding other matters relating to the general and special culture of professional men

Culture has been well defined as that knowledge or training which is essential to, at least, a provisional completeness of human nature, and a large part of it consists in having a due appreciation of the extent and importance of those fields or branches of knowledge which we cannot make our own, being outside of our profession or line of work Students of a learned profession who delve in outside fields acknowledge, consciously or unconsciously, the law of alternation and remission of activity Sleep, of course, is the only entire and absolute cessation of activity, and if we may believe that there can be sleep without dreaming, this is the most complete cessation During the waking hours the most complete diversion is afforded by our meals, during which, if we do not eat alone, the trains of thought are changed while the body is rested So also of bodily and muscular exercise, and Mr Gladstone's *penchant* for wood chopping, so far from being a vagary or denoting eccentricity, is simply the wise recognition and following out of a physiological law But aside from this, What is gained by alternation of activities, by dropping one form of mental work and taking up another? The first consideration is that in order to derive benefit from it the first form of activity must not have produced exhaustion, and exhaustion is shown when, on taking up a new form of activity, the mind continues to run in the old channels The taking up of another form of activity may be really a remission of intellectual strain It is not necessary to be idle to rest the brain, on the contrary, it is generally better to take up an amusing and lighter occupation than to be entirely idle The "rest, that strengthens unto virtuous deeds" is, then, not the rest of idlenesss, a fact recognized by Cowper when he says

> "Absence of occupation is not rest
> A mind quite vacant is a mind distress'd"

Obviously, our word culture may relate either to something acquired by the youth before entering upon the study and practice of his profession, or to some subject in which the practising physician becomes interested and learned or skilled—and we may very properly designate these as involuntary and voluntary culture Of these the latter is usually more complete, and generally, though not necessarily, more useful When acquired by professional men it is usually gained while in pursuit of mental relaxation, which is so necessary to those who do faithful work in their chosen fields "Do you imagine," says Cicero, "that I could bear up against such a strain if I did not relieve it (the mind) occasionally by philosophical inquiries?" The actions, if not the words, of learned men of almost all ages have borne out this idea We see the Premier of a great nation turning aside temporarily from the cares of State to write forcibly and learnedly of philosophical and historical matters A surgeon lays away the scalpel to investigate principles of combustion Egorovitch Min takes refuge from professional cares in language studies and leaves the literature of his country in debt to him when he dies It is easily seen that these are not isolated cases, on the contrary, it seems to be the rule with the most diligent workers in any department to have some outside study for the relaxation, conscious or unconscious, and amusement which it gives It is not the indulgence of idleness, for men who work cannot enjoy absolute inactivity, nor can they be inactive We may paraphrase the saying of Euripides, "there is no one who seeks to live in pleasure that has reached fame," by "there is no one who reaches fame that can live in pleasure, man must labor," if by pleasure he meant inactivity, idleness or ease

That no absolute rule can be laid down for all men mode of treatment, small doses of laudanum combat incipient diarrhœa, and for the stomatitis a mouth-wash of chloral of potash is prescribed from the first. Though no harmful action on the kidneys was noticed, a caution is given against employing this treatment in disease of the kidneys.—*London Medical Record*, March 15, 1886.

A Test for Sugar in the Urine.—A Philadelphia correspondent of the *Atlanta Medical and Surgical Journal* states that it might be of interest to mention a convenient substitute for Fehling's solution in testing for sugar in the urine. The ordinary solutions deteriorate on keeping, and are liable to throw down the sub-oxide of copper themselves if not freshly prepared. Prof. Holland, of the Jefferson Medical College, recently gave the following test fluid, which is very efficient, is easily prepared, and is not spoiled by keeping:

GLYCERINE CUPRIC SOLUTION.

℞ Cupric sulphate ʒj
Glycerine fʒj

To make the test add five drops of this solution to one drachm of liquor potassæ, in a test-tube. Boil a few minutes to test the purity of the fluid; should it remain clear then add a few drops of the urine. If glucose be present in quantity there is at once thrown down a red precipitate, just as in the ordinary Fehling's test. To detect minute amounts of sugar, not shown by above procedure, after making the test as above, add half a drachm of urine, boil and set aside. If sugar be present, even in very minute quantity, the liquor, as it cools, will turn to an olive green color and become turbid.—*The College and Clinical Record*, April 1, 1886.

The Metallic Suture in Fracture of the Patella.—At the close of a paper on this subject Dr. Frederic S. Dennis, of New York, draws the following conclusions:

First.—In compound fractures of the patella there is not the slightest question as to the propriety of the operation of wiring the fragments. Fowler's cases, James's, and my own, bear undisputed testimony in corroboration of this statement.

Second.—In recent and old fractures, with the full permission of the patient and under the strictest antiseptic precautions, the operation, in the light of present statistics, is wholly justifiable.

Third.—In debilitated patients, and in those suffering from any organic disease, the operation should not be employed, and is, in fact, contra-indicated, as all other operations of expediency.

Fourth.—It is not an operation which can be indiscriminately performed, and never by an ordinary practitioner with little surgical experience and with little faith in the germ-theory of inflammation.

Fifth.—The success of this operation depends wholly upon conscientiously carrying out the smallest detail in aseptic surgery, and the surgeon who is not imbued with the true spirit of antiseptic surgery is guilty of a criminal act toward humanity if he attempts this operation.

Sixth.—While the number of cases yet operated upon is too limited to admit of deductions by means of which a final settlement of this question can be made in the minds of surgeons, the future practice of the surgery of America, the birthplace of this operation, and the practice of other countries, will soon enable us to condemn it as an unsafe and unjustifiable procedure, or else it will raise it to a pinnacle from which we can recognize one of the grandest triumphs of our art.—*New York Medical Jour.*, April 10, 1886.

Cholera and Neuroparalytic Keratitis.—The distinguished oculist, Dr. Aguilar y Blanch, contributes to the *Cronica Medica* of Valencia a paper on cholera and neuro-paralytic keratitis. His conclusions are these: 1. Cholera may give rise to a disturbance of the visual apparatus. 2. This is most apt to occur in the comatose form of the disease. 3. Children, and individuals with little organic resistance, are most affected. 4. The poor and ill-fed give the greatest contingent of patients. 5. The ocular affection is characterised by a neuro-paralytic keratitis. 6. In the majority of cases, both eyes are affected. 7. It follows the ordinary phases of this form, *i. e.* primary molecular mortification of whitish color becoming yellowish, extending superficially rather than in depth, disintegration of the elements in its centre, perforation, hernia of the iris, total mortification of the corneæ, phlegmon of the eye. 8. The point affected is always the centre of the cornea, from whence it extends after previous infiltration. 9. The disease yields promptly, if taken in the early stage and with appropriate treatment. 10. The treatment consists in hot fomentations, bandage, eserine, iodoform, and tonics.—*London Medical Record*, March 15, 1886.

Treatment of Peri-uterine Hæmatocele by Means of Negative Galvano-Puncture.—At a recent meeting of the *Association Française pour l' Avancement des Sciences*, Apostoli described this method as follows: The chemical caustic action of the continuous current is utilized in making an opening into these tumors. The opening thus made is, in character, a non-retractile fistula, with tendency to remain open, and with adhesions between the pathological cavity and the external mucous membrane. The depth of the fistula varies with the intensity of the current strength. The advantage of this method is that, on account of the adhesions formed, the danger of opening is lessened, and the cicatrix left by the negative eschar is slight and non-contractile. A further after-effect of this method of utilizing the chemical caustic action of this current is that the nutrition of these pathological cavities is modified, leading to rapid retrograde metamorphosis. Apostoli has treated one case by this method, and the excellent result obtained leads him to the following general conclusions: The method is safe, quick in action, and modifies the usual prognosis. The method is, in action, double—it has a surgical effect and a medical effect. It is applicable alike to hæmatocele, abscess, fibromata, interstitial myomata, extrauterine cysts.—*American Journal of Obstetrics*, April, 1886.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the under signed When neither is accessible remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY, APRIL 24, 1886

THE PHYSICIAN AND HIS CULTURE

An English contemporary, in a recent note under this title, quotes Sir Robert Christison as an authority that Latin and Greek cannot be dispensed with in the education of one who hopes to be a successful physician, and that medical nomenclature, so largely of Greek and Latin derivation, cannot dispense with the ancient languages and rely upon Saxon words, and few, we think, will take exception to these propositions Just how well versed in the classics the physician should be, however, is a point which Sir Robert does not discuss, nor will we until something has been said regarding other matters relating to the general and special culture of professional men

Culture has been well defined as that knowledge or training which is essential to, at least, a provisional completeness of human nature, and a large part of it consists in having a due appreciation of the extent and importance of those fields or branches of knowledge which we cannot make our own, being outside of our profession or line of work Students of a learned profession who delve in outside fields acknowledge, consciously or unconsciously, the law of alternation and remission of activity Sleep, of course, is the only entire and absolute cessation of activity, and if we may believe that there can be sleep without dreaming, this is the most complete cessation During the waking hours the most complete diversion is afforded by our meals, during which, if we do not eat alone, the trains of thought are changed while the body is rested So also of bodily and muscular exercise, and Mr Gladstone's *penchant* for wood-chopping, so far from being a vagary or denoting eccentricity, is simply the wise recognition and following out of a physiological law But aside from this, What is gained by alternation of activities, by dropping one form of mental work and taking up another? The first consideration is that in order to derive benefit from it the first form of activity must not have produced exhaustion, and exhaustion is shown when, on taking up a new form of activity, the mind continues to run in the old channels The taking up of another form of activity may be really a remission of intellectual strain It is not necessary to be idle to rest the brain, on the contrary, it is generally better to take up an amusing and lighter occupation than to be entirely idle The "rest, that strengthens unto virtuous deeds" is, then, not the rest of idlenesss, a fact recognized by Cowper when he says

> "Absence of occupation is not rest
> A mind quite vacant is a mind distress'd."

Obviously, our word culture may relate either to something acquired by the youth before entering upon the study and practice of his profession, or to some subject in which the practising physician becomes interested and learned or skilled—and we may very properly designate these as involuntary and voluntary culture Of these the latter is usually more complete, and generally, though not necessarily, more useful When acquired by professional men it is usually gained while in pursuit of mental relaxation, which is so necessary to those who do faithful work in their chosen fields "Do you imagine," says Cicero, "that I could bear up against such a strain if I did not relieve it (the mind) occasionally by philosophical inquiries?" The actions, if not the words, of learned men of almost all ages have borne out this idea We see the Premier of a great nation turning aside temporarily from the cares of State to write forcibly and learnedly of philosophical and historical matters A surgeon lays away the scalpel to investigate principles of combustion Egorovitch Min takes refuge from professional cares in language studies and leaves the literature of his country in debt to him when he dies It is easily seen that these are not isolated cases, on the contrary, it seems to be the rule with the most diligent workers in any department to have some outside study for the relaxation, conscious or unconscious, and amusement which it gives It is not the indulgence of idleness, for men who work cannot enjoy absolute inactivity, nor can they be inactive We may paraphrase the saying of Euripides, "there is no one who seeks to live in pleasure that has reached fame," by "there is no one who reaches fame that can live in pleasure, man must labor," if by pleasure he meant inactivity, idleness or ease

That no absolute rule can be laid down for all men as regards the different side studies by which the mind may be relaxed, rested, and at the same time fertilized, goes without saying The most that can be said may be given in Bain's words "The kind of change that may take place within the field of study itself, and that may operate both as a relief from strain and as a reclamation of waste ground, is best exemplified in such matters as these —In the act of learning generally there is a two fold attitude—observing what is to be done, and doing it In verbal exercises we first listen and then repeat, in handicraft, we look at the model, and then reproduce it Now the proportioning of the two attitudes is a matter of economical adjustment" Too much observing impairs the energy for action Working from a model gives the proper adjustment between observing and doing One of the most marked contrasts, and a most grateful change, is the passing from the study of science to that of language The transition from one department of science to another is often a most grateful relaxation The change from one language to another is a real, though not a very marked relief, save when it is made from the less to the better known The study of the fine arts brings distinctive organs into use, and has to many a pleasurable interest not usually possessed by other studies Many of the "outside studies" have a very direct bearing on medicine modern languages, biology, zoology, physiological chemistry, drawing and modeling may be mentioned as the more important in this connection When properly undertaken these studies constitute something more than mere amusement, as indeed may be said of any side study Very valuable work has been done during excursions into other fields than the chosen profession, as witness the work of James Veitch, the plow-maker, in optics, and, we may add, his discovery of David Brewster, who, in turn, did most excellent philosophical work while yet a minister The same is true of Priestley In these two cases, however, the side study took "the expulsive power of a new affection"

The study of foreign languages is of great importance to the physician, even though he may have no taste for general literature In very many cases there is no necessity for a teacher, and time and opportunity may be wanting to attend a regular class By subscribing for a medical journal and buying a grammar and dictionary of the language to be studied, one may by a little earnest work each day soon acquire sufficient familiarity with the language to read it readily Some have questioned the value of biology to medical men—the logical connection between the purely scientific doctrine of disease and biology The answer given by Mr Huxley is sufficiently clear "Living matter is characterized by its innate tendency to exhibit a definite series of the morphological and physiological phenomena which constitute organization and life Given a certain range of conditions, and these phenomena remain the same, within narrow limits, for each kind of living thing They furnish the normal and typical character of the species, and as such, they are the subject matter of ordinary biology pathology is a branch of biology, it is the morphology, the physiology, the distribution, the ætiology of abnormal life"

The practical study of physiological chemistry, while not a purely side study, may also be mentioned Very valuable work in this field has been done by physicians in active practice Of the study of the fine arts, including modeling, it may be said that they not only possess a rare interest, but a knowledge of drawing and modeling is of very great practical value to the doctor They are much more cultivated abroad than in America We cannot expect that every doctor may become an artist or a sculptor, but there are very few who cannot learn to draw a good figure, or to make a fair model of a diseased or malformed part A practical knowledge of mechanics is also of value Mechanical and physical principles are constantly coming up in medicine It is not necessary that the doctor should be able to make a steam engine, but so much the better if he can This knowledge is especially valuable to the surgeon, and to that man of (usually) so many resources, the country doctor

We have already signified our agreement with Sir Robert Christison, and the *Lancet*, that the Greek and Latin derivatives cannot be superseded in medical nomenclature The truth of this is apparent on a very superficial examination, though not because some one says it in an autobiography Ichthyosis is in every way preferable to any Saxon name that can be used for it This, however, would not justify the assertion that one who is even a master of the Greek language would know, by the etymology alone, what ichthyosis is or means The chief merit of this nomenclature is that it may be used by writers in all languages, whereas if we had a Saxon term, the German writers would have a German term, the French a French term, and so on to the end of the chapter The fact is, too much of this is now done, especially by foreign writers Our French and Italian *confrères*, especially, seem to have a special aversion to the use of scientific terms But as regards Sir Robert Christison's saying of Latin and Greek, "*that of all the studies suitable* for boyhood there is no other which is so likely to strengthen the memory, imagination, attention, and judgment, so certain to instil taste, so useful for imperceptibly infusing an accurate and ready use of English, or so indispensable as the groundwork for acquiring modern tongues," it is only necessary to say that it shows a want of knowledge of the mental processes involved in studying any subject, and, further, of the family relationships of some of the modern languages It is a mistake to attempt to prove something by quoting what some one says of it

THE PAPERS AND THE DISCUSSIONS ON PAPERS READ BEFORE THE ASSOCIATION

In view of the facts that the discussions on papers read before societies are often as valuable as the papers, and that those who engage in the discussions frequently complain of the manner in which their remarks are reported, it seems desirable that each one discussing a paper should write out his intended remarks previous to the reading of the paper, and amend them afterwards if necessary, or else should write them out in full as soon after the discussion as possible When possible the remarks should be written out in ink, the pages properly numbered, with the *name* of the reader of the paper, the *title* of the paper, and the *name* and *address* of the speaker on the first page

It would seem unnecessary to call attention to the fact that the reader of a paper should put his *name* and *address* on the paper, with the date on which it is read, and whether read by title or in a Section One or more papers read at the last annual meeting of the Association were sent to THE JOURNAL with no clue whatever as to the author When papers are written in parts, each part should be distinctly marked Neglect of this precaution last year caused a valuable paper to be printed second part first, since there was nothing, in the subject matter of the parts, which indicated which should have precedence Each illustration for a paper should have the name of the author upon it, and each one should be numbered If one author have more than one illustrated paper, a part of the title of the paper to which it belongs should be also placed on the illustration

We would again remind members of the Association that all addresses, papers, and discussions are the exclusive property of the Association, and should be delivered to the Permanent Secretary or to the Secretary of the Section in which they are read during the meeting of the Association The rule on this subject is explicit, and having been adopted by the Association is binding upon each member

A NEW TEST OF MEDICAL COLLEGE STANDING

The Illinois State Board of Health held its regular quarterly meeting in Chicago, commencing April 15, 1886 From a brief report of its doings in the *Chicago Herald* of the 16th we clip the following "Those present were Drs Bateman, Clark, Ludlam, Rauch and MacKenzie A resolution was passed to the effect that the continuous graduation of 45 per cent of the total number of matriculates of a medical college—due allowance being made for the average annual loss—must be accepted as *prima facie* evidence that practically every candidate is graduated without regard to competency or qualification, that it be resolved that no medical college be recognized as in good standing within the meaning and intent of the act to regulate the practice of medicine in the State of Illinois, the aggregate graduates of which amount to 45 per cent of its aggregate matriculates during a period of five years ending with any session subsequent to the session of 1885–86"

From this it appears that any person who hereafter presents a diploma to the Illinois State Board of Health to procure a license to practice in that State, must accompany it with proof that the college granting the diploma had not during the five years preceding the date of said diploma graduated an average of 45 per cent of the whole number of its matriculates Or will the Illinois State Board of Health add to the list of requirements that all medical colleges must comply with in order to be recognized as in "good standing," another, requiring the Dean or Secretary of every medical college in this country to furnish the Secretary of the Board, annually, a sworn statement of the actual matriculates and graduates under penalty of forfeiting the "good standing" of the college if he refuses or omits to comply? Only a few months since, Judge McAllister, in rendering a decision of the Appellate Court in this city, declared very distinctly that the Illinois State Board of Health was an executive body simply, with no legislative functions, more especially in regard to medical colleges But nevertheless, the Board continues to perform the double duty of both making and executing laws This last act of legislation may be found rather difficult of execution It may be found quite as easy for a medical college to add to the published list of its classes enough names to keep the list of their graduates from exceeding 44 per cent, as it is for it to insert a clause in its announcements saying that a certain amount of general education will be required for admission whether any attention is ever given to its execution or not as regards the different side studies by which the mind may be relaxed, rested, and at the same time fertilized, goes without saying. The most that can be said may be given in Bain's words: "The kind of change that may take place within the field of study itself, and that may operate both as a relief from strain and as a reclamation of waste ground, is best exemplified in such matters as these:—In the act of learning generally there is a two fold attitude—observing what is to be done, and doing it. In verbal exercises we first listen and then repeat; in handicraft, we look at the model, and then reproduce it. Now the proportioning of the two attitudes is a matter of economical adjustment." Too much observing impairs the energy for action. Working from a model gives the proper adjustment between observing and doing. One of the most marked contrasts, and a most grateful change, is the passing from the study of science to that of language. The transition from one department of science to another is often a most grateful relaxation. The change from one language to another is a real, though not a very marked relief, save when it is made from the less to the better known. The study of the fine arts brings distinctive organs into use, and has to many a pleasurable interest not usually possessed by other studies. Many of the "outside studies" have a very direct bearing on medicine: modern languages, biology, zoology, physiological chemistry, drawing and modeling may be mentioned as the more important in this connection. When properly undertaken these studies constitute something more than mere amusement, as indeed may be said of any side study. Very valuable work has been done during excursions into other fields than the chosen profession, as witness the work of James Veitch, the plow-maker, in optics; and, we may add, his discovery of David Brewster, who, in turn, did most excellent philosophical work while yet a minister. The same is true of Priestley. In these two cases, however, the side study took "the expulsive power of a new affection."

The study of foreign languages is of great importance to the physician, even though he may have no taste for general literature. In very many cases there is no necessity for a teacher, and time and opportunity may be wanting to attend a regular class. By subscribing for a medical journal and buying a grammar and dictionary of the language to be studied, one may by a little earnest work each day soon acquire sufficient familiarity with the language to read it readily. Some have questioned the value of biology to medical men—the logical connection between the purely scientific doctrine of disease and biology. The answer given by Mr. Huxley is sufficiently clear: "Living matter is characterized by its innate tendency to exhibit a definite series of the morphological and physiological phenomena which constitute organization and life. Given a certain range of conditions, and these phenomena remain the same, within narrow limits, for each kind of living thing. They furnish the normal and typical character of the species, and as such, they are the subject matter of ordinary biology pathology is a branch of biology; it is the morphology, the physiology, the distribution, the ætiology of abnormal life."

The practical study of physiological chemistry, while not a purely side study, may also be mentioned. Very valuable work in this field has been done by physicians in active practice. Of the study of the fine arts, including modeling, it may be said that they not only possess a rare interest, but a knowledge of drawing and modeling is of very great practical value to the doctor. They are much more cultivated abroad than in America. We cannot expect that every doctor may become an artist or a sculptor, but there are very few who cannot learn to draw a good figure, or to make a fair model of a diseased or malformed part. A practical knowledge of mechanics is also of value. Mechanical and physical principles are constantly coming up in medicine. It is not necessary that the doctor should be able to make a steam engine, but so much the better if he can. This knowledge is especially valuable to the surgeon, and to that man of (usually) so many resources, the country doctor.

We have already signified our agreement with Sir Robert Christison, and the *Lancet*, that the Greek and Latin derivatives cannot be superseded in medical nomenclature. The truth of this is apparent on a very superficial examination, though not because some one says it in an autobiography. Ichthyosis is in every way preferable to any Saxon name that can be used for it. This, however, would not justify the assertion that one who is even a master of the Greek language would know, by the etymology alone, what ichthyosis is or means. The chief merit of this nomenclature is that it may be used by writers in all languages; whereas if we had a Saxon term, the German writers would have a German term, the French a French term, and so on to the end of the chapter. The fact is, too much of this is now done, especially by foreign writers. Our French and Italian *confrères*, especially, seem to have a special aversion to the use of scientific terms. But as regards Sir Robert Christison's saying of Latin and Greek, "that of all the studies suitable for boyhood there is no other which is so likely to strengthen the memory, imagination, attention, and judgment, so certain to instil taste, so useful for imperceptibly infusing an accurate and ready use of English, or so indispensable as the groundwork for acquiring modern tongues," it is only necessary to say that it shows a want of knowledge of the mental processes involved in studying any subject, and, further, of the family relationships of some of the modern languages It is a mistake to attempt to prove something by quoting what some one says of it

THE PAPERS AND THE DISCUSSIONS ON PAPERS READ BEFORE THE ASSOCIATION

In view of the facts that the discussions on papers read before societies are often as valuable as the papers, and that those who engage in the discussions frequently complain of the manner in which their remarks are reported, it seems desirable that each one discussing a paper should write out his intended remarks previous to the reading of the paper, and amend them afterwards if necessary, or else should write them out in full as soon after the discussion as possible When possible the remarks should be written out in ink, the pages properly numbered, with the *name* of the reader of the paper, the *title* of the paper, and the *name* and *address* of the speaker on the first page

It would seem unnecessary to call attention to the fact that the reader of a paper should put his *name* and *address* on the paper, with the date on which it is read, and whether read by title or in a Section One or more papers read at the last annual meeting of the Association were sent to THE JOURNAL with no clue whatever as to the author When papers are written in parts, each part should be distinctly marked Neglect of this precaution last year caused a valuable paper to be printed second part first, since there was nothing, in the subject matter of the parts, which indicated which should have precedence Each illustration for a paper should have the name of the author upon it, and each one should be numbered If one author have more than one illustrated paper, a part of the title of the paper to which it belongs should be also placed on the illustration

We would again remind members of the Association that all addresses, papers, and discussions are the exclusive property of the Association, and should be delivered to the Permanent Secretary or to the Secretary of the Section in which they are read during the meeting of the Association The rule on this subject is explicit, and having been adopted by the Association is binding upon each member

A NEW TEST OF MEDICAL COLLEGE STANDING

The Illinois State Board of Health held its regular quarterly meeting in Chicago, commencing April 15, 1886 From a brief report of its doings in the *Chicago Herald* of the 16th we clip the following "Those present were Drs Bateman, Clark, Ludlam, Rauch and MacKenzie A resolution was passed to the effect that the continuous graduation of 45 per cent of the total number of matriculates of a medical college—due allowance being made for the average annual loss—must be accepted as *prima facie* evidence that practically every candidate is graduated without regard to competency or qualification, that it be resolved that no medical college be recognized as in good standing within the meaning and intent of the act to regulate the practice of medicine in the State of Illinois, the aggregate graduates of which amount to 45 per cent of its aggregate matriculates during a period of five years ending with any session subsequent to the session of 1885–86"

From this it appears that any person who hereafter presents a diploma to the Illinois State Board of Health to procure a license to practice in that State, must accompany it with proof that the college granting the diploma had not during the five years preceding the date of said diploma graduated an average of 45 per cent of the whole number of its matriculates Or will the Illinois State Board of Health add to the list of requirements that all medical colleges must comply with in order to be recognized as in "good standing," another, requiring the Dean or Secretary of every medical college in this country to furnish the Secretary of the Board, annually, a sworn statement of the actual matriculates and graduates under penalty of forfeiting the "good standing" of the college if he refuses or omits to comply? Only a few months since, Judge McAllister, in rendering a decision of the Appellate Court in this city, declared very distinctly that the Illinois State Board of Health was an executive body simply, with no legislative functions, more especially in regard to medical colleges But nevertheless, the Board continues to perform the double duty of both making and executing laws This last act of legislation may be found rather difficult of execution It may be found quite as easy for a medical college to add to the published list of its classes enough names to keep the list of their graduates from exceeding 44 per cent, as it is for it to insert a clause in its announcements saying that a certain amount of general education will be required for admission whether any attention is ever given to its execution or not

STROPHANTHUS

The physicians in this country who have made unsuccessful attempts to obtain specimens of this drug will be pleased to learn that a tincture, prepared by the method and of the strength recommended by Professor Fraser, is now made by MM Burroughs and Welcome, Snow Hill Buildings, London, E C The *British Medical Journal* describes it as a clear, dark amber-colored fluid, miscible with water in all proportions, and yielding an opalescent solution It can be dispensed with acids or alkalies, and does not change color with perchloride of iron Its chief drawback is its intensely bitter taste, but it is seen that it has pharmacopœial advantages over tincture of digitalis

Epidemic Cholera —As the warm season advances in the south of Europe, indications of the spread of cholera are again attracting attention A despatch dated Paris, April 16, states that sixty-eight cases had occurred in Brindisi, Italy, and that sixteen deaths had taken place between the 8th and the 16th inst It is reported that very stringent precautions are being taken to prevent its crossing the frontiers of both France and Austria Still, the officials of Brindisi claim that the disease is sporadic

SOCIETY PROCEEDINGS.

GYNÆCOLOGICAL SOCIETY OF BOSTON

Stated Meeting, March 11, 1886

The President, Henry O Marcy, M D,
in the Chair
H J Harriman, M D, Secretary

The records of the February meeting were read and approved

Dr R J P Goodwin, of East Boston, and Dr W Thornton Parker, of Newport, R I, were

elected to active membership

Dr H M Field then presented a report of

A CASE OF INVERSION OF THE UTERUS, FOLLOWING UPON PARTURITION

Mrs J W B, 25 years of age, was confined with her first child on February 7, with a tedious and rather severe labor of twenty-eight hours Delay had been chiefly caused by a rigid os Fifteen hours before the birth a two gallon douche of hot water was administered, but had no effect Dr Field could remember but one previous instance in which this measure had failed to hasten dilatation of the os No anæsthetics were used An attempt to administer chloral hydrate by mouth and rectum was unsuccessful An occasional suppository of morphine and belladonna worked admirably Thenceforth for nine hours progress was slow, the diameter of the uterine orifice being but little increased A second hot douche was administered, and the hard, cartilaginous ring of the os at once began to relax, and the labor proceeded steadily until the birth of the child, three hours afterwards

At once, upon extrusion of the head, ʒij of fluid extract of ergot were administered The fundus uteri was followed down by the left hand and, immediately after the birth of the child, Credé's method of expelling the placenta was applied, cautious and tentative traction being at the same time made upon the cord Almost at once the patient uttered some exclamation, and it was discovered that both uterus and placenta were in the bed, the one organ so adherent to the other that it was difficult to determine the line of division The placenta having been removed the uterus was reposited without much effort by steady and increasing pressure of the four fingers upon the fundus, the thumb lying upon the palm The hand was retained *in utero* for a little while to ensure continued contraction, and also to ascertain if any shreds of placental tissue still remained in the cavity On turning the attention to the patient it was discovered that the abdomen was so distended with gas that it was difficult to feel the womb in its cavity The change in facial expression was sudden and very marked The young and beautiful face which just before had been full of blood suddenly became pinched and haggard, and the color a bluish-white Although everything proceeded favorably in the future progress of the case, it required nearly a week for a look thus suddenly assumed to pass entirely away This, doubtless, represented shock No hæmorrhage occurred, and the patient recovered without any untoward symptoms

Dr Henry E Crampton, of New York, in an ad admirable monograph upon "Inversion of the Uterus, following upon Parturition," published in the *American Journal of Obstetrics*, has given the literature of the subject The present case well illustrates the following remark "Shock is rarely absent There is a peculiar anxious expression and manner Every movement shows how profoundly the whole nervous system sympathizes with the terrible dislocation" In regard to traction upon the cords as a cause of inversion, Dr Crampton says "Traction upon the cord may produce prolapsus, if severe, procedentia It will never alone produce inversion, but may facilitate it if paresis is present" It is most apt to occur in first deliveries, and is referable to a degree of paralysis in the uterine muscle, brought about by a tedious and exhausting labor Death ensues in about twenty per cent of recent cases, whatever the treatment A visit to Mrs B four weeks after delivery found her well No irregularity in function of either uterus or bladder Uterus in its normal position

Dr Field closed with some remarks upon the parturient use of chloral hydrate His experience has lead him to entertain a very favorable opinion of the drug, *i e*, so far as he has been able to secure the results which belong to the remedy He called attention to an unfavorable opinion of the drug expressed by Dr A Pinard, of Paris, who has abandoned it on account of the difficulty in procuring its retention and absorption This difficulty, he insists is equally great whether exhibited by mouth or rectum If given by mouth the bulky and irritating potions, several times repeated, are apt to induce vomiting and thereby unfit the stomach for food, stimulants or medicine If given by rectum there is still greater liability that it will be discharged before it can be absorbed

Dr Field also reported a

CASE OF PROFUSE ANTE-PARTUM HÆMORRHAGE, PARTURITION, DEATH

Mrs J H L, 28 years of age, was confined at full term on January 27 She had had three previous confinements Oldest child 8 years old, youngest, 18 months No previous complication in parturition except a case of hour-glass contraction at birth of first child Mrs L was of strong physique, cheerful disposition, and had had every alleviation which money could provide Her last conception occurred while she was still nursing During later months of gestation she had been under observation on account of slight bloating and a trace of albumen in the urine

On February 27 Dr Field was summoned in haste and found patient lying in bed, very pale and evidently much frightened The pupil was so dilated that her blue eyes looked black She had had no pain, but an uneasy sensation called her to the water closet, when "something seemed to break inside," and a deluge of blood came away There were no stains on the bed and no clots in the vagina There was a slight and inconsiderable trickling of blood from the vulva She had never seen a drop of blood until the sudden flooding No parturient pain was present A gr ss suppository of morphine and a little iced brandy reassured her, the pupil returned to its normal size, and the pulse regained a fair degree of steadiness and force Digital examination revealed an os dilated to the size of a quarter of a dollar, and the fœtal head high up As the patient was not losing blood she was given a half hour's rest, material in the meantime being prepared for a tampon, should one be necessary The working hypothesis at this time was that there existed a slight lateral cervical insertion of the placenta In support of this it seemed to the examining finger as if a limited portion of the uterus just within the os felt a little thicker than neighboring parts, as if at this point the placenta might dip forward It was decided to apply a tampon to prevent any possible recurrence of the dangerous flooding Each pledget of cotton was dipped in undiluted Monsell's solution, and after being slightly oiled with cosmoline, was firmly packed in place After the vagina had been firmly packed a bandage was applied to hold the tampon in place At this time Dr Stoddard, of Newtonville, saw the patient in consultation, and approved of the treatment in every particular

After the tampon was applied ergot was given in frequent small doses, and soon labor pains set in The tampon did not prevent a slight oozing of blood, but the amount lost from the time when Dr Field first saw the case until he left the house was inconsiderable Soon the tampon began to bulge with each pain, and a watery, grumous fluid to escape The tampon was then removed, and the head was found to be engaged The labor progressed rapidly and was terminated at 5 05 P M Ergot was used both by mouth and hypodermically, and the uterus contracted at once The placenta, together with a large venous looking clot, was at once expelled, and everything seemed to be looking well Leaving a trusty nurse in charge of the uterus, half an hour was spent in fruitless efforts to resuscitate the fœtus One hour after the birth of the child it became evident that the mother was losing ground, though the uterus was well contracted and no blood of any amount being lost Resort was had to hypodermic brandy at frequent intervals At first a slight response was noticed, but later there was no response whatever, and the lamentable case terminated by the death of the mother two hours and a half after the birth of the child

It has been suggested that another method might have been adopted in the treatment of the case Turning might have been done at once when Dr Field was called to the patient Had it been a case of central implantation of the placenta, or had the flooding still continued, such heroic treatment might have been indicated, but as the hæmorrhage was under complete control and there was no indication for speedy and forcible delivery, it was thought best to give the patient a chance to rally She did rally to a good degree, and her labor was light and completed with little effort

Dr Field was disposed to believe that he underestimated the amount of blood the patient lost before he saw her Again, an autopsy might have revealed some lesion or complication which could not have been disclosed otherwise No autopsy was permitted During the last hours of life, when the patient seemed to be sinking, Dr Field explored the interior of the uterus The organ was firmly contracted, but of rather abnormal size This undue size was referable to the posterior wall of the organ, and it is possible that an autopsy might have revealed a disseminated interstitial fibroid tumor in that location

Dr Wm G Wheeler had had three cases of inversion of the uterus, and all recovered Shock is generally prominent, but is not due to loss of blood The uterus is readily replaced, but the pinched and haggard expression of the countenance is very marked, and does not disappear for several days He thought that death in Dr Field's second case might have been due to shock If this was not the case there may have been some pathological condition of the uterus which produced this unfortunate result Dr Wheeler did not think that turning would have been advisable in this case

Dr Stoddard, who was the consultant in the second case, said that he did not see the patient until after the tampon was applied, and therefore did not have the advantage of an examination of the genital tract Turning and rapid delivery was pro posed at his first visit to the patient, but as hæmorrhage was under complete control, and there was no marked indication for such heroic treatment, it was not done He regarded the treatment of the case as judicious He had never seen a case of inversion of the uterus

Dr H C White had never seen a case of inversion of the uterus He thought that shock or some unknown factor must have been the cause of death in Dr Field's second case

Dr W Symington Brown had never seen a case of inversion He did not think the second case described one of partial placenta prævia, but regarded it as more probable that it was a case of interstitial fibroid tumor Monsell's solution is not, in his opinion, a suitable styptic for use where it is necessary to tampon the vagina, as it formed a hard, leathery clot He generally uses boiling water, applied to the bleeding vessels by means of a dressing forceps and a sponge When a styptic is required on a tampon Dr, Brown uses a weak solution of tincture of iodine, and has had good results from such use It is important to combine nutrient materials, such as milk and beef tea, with stimulants where the latter remedies are required, in order that the strength of the patient may be maintained

Dr W Thornton Parker, of Newport, R I, had been much interested in the cases reported He raised the question whether death in the second case was not due to blood clot

Dr C W Stevens thought that transfusion was indicated in the second case when it was evident that the patient was sinking His experience had led him to believe that when the system was suffering from shock, absorption, either by mouth or subcutaneous tissue, was in abeyance, and that the only hope lay in throwing directly into the circulation some material suitable to support the powers of life

Dr A L Norris had seen but one case of partial inversion of the uterus In the second case reported he thought there must have been some unknown factor in producing death, such as interstitial fibroids He regarded the treatment of the case as entirely correct, and did not think that turning was admissible

Dr N O B Wingate had seen no cases of inversion He thought that internal hæmorrhage may have been the cause of death in Dr Field's second case He related a case of sudden death soon after delivery which occurred in his own practice His patient was a large and strong woman, and had been in labor twelve hours She suddenly began to sink, and delivery was hastened by using the forceps, no anæsthetics being used A child weighing 17½ lbs was delivered without very much difficulty The mother rallied well, and everything seemed to be progressing finely After reaching home he was hurriedly called again and found his patient dead The nurse reported that she gasped a few times and died very suddenly Dr Wingate thought death in this case due to heart clot

Dr Harbird asked Dr Field in regard to the amount of ergot given in his second case before the birth of the head He thought that there might have existed a rupture of the uterus which escaped notice but caused death He doubted if the loss of blood caused death, as in many cases it is known that the loss of blood may be very great and yet not destroy life

Dr L W Cushing asked if much hæmorrhage followed peeling off the placenta in the case of inversion A discussion had recently arisen in a medical society as to whether it was best to try to separate the placenta from the uterus while it was extruded, or to replace the uterus and then remove the placenta, the theory being that serious hæmorrhage would follow its removal when the uterus was inverted Dr Cushing said that transfusion was likely to be a disappointing measure in such cases as Dr Field's second case It was no easy operation to perform, and even if successfully accomplished did not often succeed in averting a fatal issue He mentioned the case of a strong and robust man in which transfusion was tried for excessive hæmorrhage from the temporal artery Although the case was a favorable one and the operation was successfully performed, the patient sank and died Dr Cushing thought there was a cause of death in such cases which might be overlooked, *i e*, the gradual formation of a clot in the venous system, beginning at the periphery, and gradually increasing until it interferes with the action of the heart or lungs Œdema of the lungs may be due to this cause

Dr Whitcomb asked if chloral hydrate could be used hypodermically He also raised the question if an idiosyncrasy to ergot did not exist in Dr Field's second case

In reply to queries made by different members during the discussion, Dr Field made the following statements Milk or other nutrient material had not been combined with the brandy on account of constant nausea He did not think that death could have been due to heart clot, as there were no symptoms present which could support such an hypothesis He was of the opinion that transfusion was indicated, and would have tried that means had he had the time and necessary apparatus The amount of ergot given in the second case before the birth of the head was about ʒj in divided doses He knew no evidence to prove that such doses of ergot ever produced toxic effects He did not think that an idiosyncrasy to ergot existed in the case Chloral hydrate could not be administered hypodermically on account of its irritating qualities No hæmorrhage of importance followed peeling off the placenta in the case of inversion

Dr Marcy, in commenting upon Dr Field's case, suggested a method of intravenous injection which he had used quite a number of times with ease and success, and which had never been reported It was the result of many experiments in injection of animals for anatomical purposes under continuous atmospheric pressure Milk is drawn directly from the animal through antiseptic gauze into an aseptically prepared bottle of considerable size—one holding thirty to forty ounces preferred—and the rubber stopper of the aspirator adjusted By reversal of the instrument, the air in the bottle is compressed, and the bottle, held cork down, is ready for use. The No. 1 or 2 aspirator needle is easily introduced into the median cephalic vein without cutting, and when the end is free in the vein the connection with the bottle is made, first letting a little milk escape to ensure absence of air. The intravenous injection of milk or saline fluids is thus simple and easy, and with proper care may be rendered aseptic. Transfusion mediate or immediate is not easy or simple. The dissection of a vein and introduction and tying of a canula in a patient nearly bloodless, perhaps dying, is difficult, and the Aveling instrument, with Dr. Marcy, had been very unsatisfactory even in a series of experiments upon dogs conducted with great care. The aspirator is now a part of the armamentarium of every physician, and by its use as suggested we have at hand a ready and easy method of adding fluid to the circulation which may save life.

In reply to the question as to the advantages which Dr. Marcy had seen coming from intravenous injection, he replied that he believed in all the instances used the patients have ultimately died, but good effects followed temporarily from the injections. They had been used only in desperate cases, and he believed they should be resorted to earlier and oftener than usual. Dr. F. B. Harrington, of Boston, published in the *Boston Medical and Surgical Journal*, of March 4, a case in which sixty-six ounces of a salt solution had been used after a most alarming flooding, and the inference seemed clear that recovery was dependent upon its use. Dr. Marcy had never injected more than ten or twelve ounces of milk at one time; decided improvement of the circulation had followed after the use of six or eight ounces.

DR. MARCY presented an

INTERSTITIAL MULTILOBULAR FIBROID TUMOR

which he had recently removed at his private hospital, assisted by Dr. Cushing, Dr. Corey of Westboro, and Dr. Goodwin, of East Boston. The patient, aged 53, had passed the menopause some years ago, and only within a few months had in any way been a sufferer. Excessive and continuous flowing caused her to consult Dr. Corey. The tumor reached nearly to the umbilicus and was situated in the anterior wall of the uterus. The cervix was obliterated and the os admitted the finger. The uterine wall over the tumor was about one third of an inch in thickness and bled profusely on section, after which the hæmorrhage was slight during the operation. Strong vulsellum forceps were hooked into the tumor, and it was cut away piecemeal, the saw-spoon being used in separating the growth from its investing capsule. It was removed in fourteen sections, and the entire mass weighed four pounds. The operation was conducted under irrigation with a solution of mercuric bichloride, and the cavity filled with Seabury & Johnson's soft iodoform gauze.

The patient rallied well, and during the ten days following operation pulse was nearly normal, after a reaction to temperature of 100 twelve hours after the operation. Without permission the patient walked about her room, during the absence of the nurse, on the tenth day, and a severe perimetritis supervened; recovery from this was less rapid and the patient was discharged convalescent between the fourth and fifth week.

The interest in the operation centres in the size of the growth, since it is very rarely that tumors of this size have been removed per vaginam. Rapidly growing fibroids are also rare after the menopause.

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT.)

The Congress of Hydrology and Climatology—Changes in the Pupil after Death—Hydatid Cysts of the Liver—Cardiac Stimulants—New Test for Codeine.

The first International Congress of Hydrology and Climatology will be held at Biarritz, the 1st of October, 1886, under the honorary patronage of the French Minister of Commerce, and the presidence of Dr. Durand-Fardel, the well known hydrologist. The programme states that the aim of this Congress is to bring together in a country rich in thermal and sanitary stations, the learned men of all countries who would study in common the questions bearing on hydrology and climatology. All societies and scientific associations, all learned men in France and abroad are invited to take part in this meeting. Any person wishing to join the Congress must send in his application enclosing a postoffice order for ten shillings, which must reach Paris by the 1st of September at latest in order to entitle the members to a reduction of fifty per cent. on the French railways. They will also enjoy other privileges which are detailed in the programme, which may be obtained from Dr. Durand Fardel, 17 Rue de Guénégaud, Paris, who will be glad to furnish any other information that may be required concerning the Congress.

The *Gazette des Hôpitaux* lately published the following interesting points on the alterations that the pupil undergoes after death, and on the action of atropine and of other alkaloids on the eye of a corpse. In the greater number of cases, the pupils are dilated at the moment of death. The dilatation takes place a very short time before the person has expired. It is produced very rarely a short time after death. The dilatation is of a paralytic nature, and independent of the aspect that it presented during life, whether it was produced by the effects of drugs or by disease. More frequently, after death, a progressive contraction of the pupil is observed, varying within rather extensive limits, both as regards the moment of its appearance and the degrees of the contraction. This contraction ordinarily commences an hour after death and continues forty eight hours afterwards. The myosis, often unequal on both sides, is independent of the action of light and of cadaveric rigidity. The pupil reacts, under the influence of atropine, after death, during a variable time according to the subjects, nearly about four hours when the instillation of atropine is employed, during a longer time, when atropine is injected into posed at his first visit to the patient, but as hæmorrhage was under complete control, and there was no marked indication for such heroic treatment, it was not done He regarded the treatment of the case as judicious He had never seen a case of inversion of the uterus

Dr H C White had never seen a case of inversion of the uterus He thought that shock or some unknown factor must have been the cause of death in Dr Field's second case

Dr W Symington Brown had never seen a case of inversion He did not think the second case described one of partial placenta prævia, but regarded it as more probable that it was a case of interstitial fibroid tumor Monsell's solution is not, in his opinion, a suitable styptic for use where it is necessary to tampon the vagina, as it formed a hard, leathery clot He generally uses boiling water, applied to the bleeding vessels by means of a dressing forceps and a sponge When a styptic is required on a tampon Dr, Brown uses a weak solution of tincture of iodine, and has had good results from such use It is important to combine nutrient materials, such as milk and beef tea, with stimulants where the latter remedies are required, in order that the strength of the patient may be maintained

Dr W Thornton Parker, of Newport, R I, had been much interested in the cases reported He raised the question whether death in the second case was not due to blood clot

Dr C W Stevens thought that transfusion was indicated in the second case when it was evident that the patient was sinking His experience had led him to believe that when the system was suffering from shock, absorption, either by mouth or subcutaneous tissue, was in abeyance, and that the only hope lay in throwing directly into the circulation some material suitable to support the powers of life

Dr A L Norris had seen but one case of partial inversion of the uterus In the second case reported he thought there must have been some unknown factor in producing death, such as interstitial fibroids He regarded the treatment of the case as entirely correct, and did not think that turning was admissible

Dr N O B Wingate had seen no cases of inversion He thought that internal hæmorrhage may have been the cause of death in Dr Field's second case He related a case of sudden death soon after delivery which occurred in his own practice His patient was a large and strong woman, and had been in labor twelve hours She suddenly began to sink, and delivery was hastened by using the forceps, no anæsthetics being used A child weighing 17½ lbs was delivered without very much difficulty The mother rallied well, and everything seemed to be progressing finely After reaching home he was hurriedly called again and found his patient dead The nurse reported that she gasped a few times and died very suddenly Dr Wingate thought death in this case due to heart clot

Dr Harbird asked Dr Field in regard to the amount of ergot given in his second case before the birth of the head He thought that there might have existed a rupture of the uterus which escaped notice but caused death He doubted if the loss of blood caused death, as in many cases it is known that the loss of blood may be very great and yet not destroy life

Dr E W Cushing asked if much hæmorrhage followed peeling off the placenta in the case of inversion A discussion had recently arisen in a medical society as to whether it was best to try to separate the placenta from the uterus while it was extruded, or to replace the uterus and then remove the placenta, the theory being that serious hæmorrhage would follow its removal when the uterus was inverted Dr Cushing said that transfusion was likely to be a disappointing measure in such cases as Dr Field's second case It was no easy operation to perform, and even if successfully accomplished did not often succeed in averting a fatal issue He mentioned the case of a strong and robust man in which transfusion was tried for excessive hæmorrhage from the temporal artery Although the case was a favorable one and the operation was successfully performed, the patient sank and died Dr Cushing thought there was a cause of death in such cases which might be overlooked, *i e*, the gradual formation of a clot in the venous system, beginning at the periphery, and gradually increasing until it interferes with the action of the heart or lungs Œdema of the lungs may be due to this cause

Dr Whitcomb asked if chloral hydrate could be used hypodermically He also raised the question if an idiosyncrasy to ergot did not exist in Dr Field's second case

In reply to queries made by different members during the discussion, Dr Field made the following statements Milk or other nutrient material had not been combined with the brandy on account of constant nausea He did not think that death could have been due to heart clot, as there were no symptoms present which could support such an hypothesis He was of the opinion that transfusion was indicated, and would have tried that means had he had the time and necessary apparatus The amount of ergot given in the second case before the birth of the head was about ʒj in divided doses He knew no evidence to prove that such doses of ergot ever produced toxic effects He did not think that an idiosyncrasy to ergot existed in the case Chloral hydrate could not be administered hypodermically on account of its irritating qualities No hæmorrhage of importance followed peeling off the placenta in the case of inversion

Dr Marcy, in commenting upon Dr Field's case, suggested a method of intravenous injection which he had used quite a number of times with ease and success, and which had never been reported It was the result of many experiments in injection of animals for anatomical purposes under continuous atmospheric pressure Milk is drawn directly from the animal through antiseptic gauze into an aseptically prepared bottle of considerable size—one holding thirty to forty ounces preferred—and the rubber stopper of the aspirator adjusted By reversal of the instrument, the air in the bottle is compressed, and the bottle, held cork down, is ready for use The No 1 or 2 aspirator needle is easily introduced into the median cephalic vein without cutting, and when the end is free in the vein the connection with the bottle is made, first letting a little milk escape to ensure absence of air The intravenous injection of milk or saline fluids is thus simple and easy, and with proper care may be rendered aseptic Transfusion mediate or immediate is not easy or simple The dissection of a vein and introduction and tying of a canula in a patient nearly bloodless, perhaps dying, is difficult, and the Aveling instrument, with Dr Marcy, had been very unsatisfactory even in a series of experiments upon dogs conducted with great care The aspirator is now a part of the armamentarium of every physician, and by its use as suggested we have at hand a ready and easy method of adding fluid to the circulation which may save life

In reply to the question as to the advantages which Dr Marcy had seen coming from intravenous injection, he replied that he believed in all the instances used the patients have ultimately died, but good effects followed temporarily from the injections They had been used only in desperate cases, and he believed they should be resorted to earlier and oftener than usual Dr F B Harrington, of Boston, published in the *Boston Medical and Surgical Journal*, of March 4, a case in which sixty-six ounces of a salt solution had been used after a most alarming flooding, and the inference seemed clear that recovery was dependent upon its use Dr Marcy had never injected more than ten or twelve ounces of milk at one time, decided improvement of the circulation had followed after the use of six or eight ounces

Dr Marcy presented an

INTERSTITIAL MULTILOBULAR FIBROID TUMOR

which he had recently removed at his private hospital, assisted by Dr Cushing, Dr Corey, of Westboro, and Dr Goodwin, of East Boston The patient aged 53, had passed the menopause some years ago, and only within a few months had in any way been a sufferer Excessive and continuous flowing caused her to consult Dr Corey The tumor reached nearly to the umbilicus and was situated in the anterior wall of the uterus The cervix was obliterated and the os admitted the finger The uterine wall over the tumor was about one third of an inch in thickness and bled profusely on section, after which the hæmorrhage was slight during the operation Strong vulsellum forceps were hooked into the tumor, and it was cut away piecemeal, the saw-spoon being used in separating the growth from its investing capsule It was removed in fourteen sections, and the entire mass weighed four pounds The operation was conducted under irrigation with a solution of mercuric bichloride, and the cavity filled with Seabury & Johnson's soft iodoform gauze

The patient rallied well, and during the ten days following operation pulse was nearly normal, after a reaction to temperature of 100 twelve hours after the operation Without permission the patient walked about her room, during the absence of the nurse, on the tenth day, and a severe perimetritis supervened, recovery from this was less rapid and the patient was discharged convalescent between the fourth and fifth week

The interest in the operation centres in the size of the growth, since it is very rarely that tumors of this size have been removed per vaginam Rapidly growing fibroids are also rare after the menopause

---

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

The Congress of Hydrology and Climatology—Changes in the Pupil after Death—Hydatid Cysts of the Liver—Cardiac Stimulants—New Test for Codeine

The first International Congress of Hydrology and Climatology will be held at Biarritz, the 1st of October, 1886, under the honorary patronage of the French Minister of Commerce, and the presidence of Dr Durand-Fardel, the well known hydrologist The programme states that the aim of this Congress is to bring together in a country rich in thermal and sanitary stations, the learned men of all countries who would study in common the questions bearing on hydrology and climatology All societies and scientific associations, all learned men in France and abroad are invited to take part in this meeting Any person wishing to join the Congress must send in his application enclosing a postoffice order for ten shillings, which must reach Paris by the 1st of September at latest in order to entitle the members to a reduction of fifty per cent on the French railways They will also enjoy other privileges which are detailed in the programme, which may be obtained from Dr Durand Fardel, 17 Rue de Guénégaud, Paris, who will be glad to furnish any other information that may be required concerning the Congress

The *Gazette des Hopitaux* lately published the following interesting points on the alterations that the pupil undergoes after death, and on the action of atropine and of other alkaloids on the eye of a corpse In the greater number of cases, the pupils are dilated at the moment of death The dilatation takes place a very short time before the person has expired It is produced very rarely a short time after death The dilatation is of a paralytic nature, and independent of the aspect that it presented during life, whether it was produced by the effects of drugs or by disease More frequently, after death, a progressive contraction of the pupil is observed, varying within rather extensive limits, both as regards the moment of its appearance and the degrees of the contraction This contraction ordinarily commences an hour after death and continues forty eight hours afterwards The myosis, often unequal on both sides, is independent of the action of light and of cadaveric rigidity The pupil reacts, under the influence of atropine, after death, during a variable time according to the subjects, nearly about four hours when the instillation of atropine is employed, during a longer time, when atropine is injected into the anterior chamber Dilatation commences sensibly after the same time, on the dead as well as on the living eye, the action is less durable than in the dead eye The instillation or injection of eserine, after death, produces contraction of the pupil, but for a shorter time than the dilatation which is produced by atropine Instillations of ergotine, after death, produce no change whatever of the pupil, an injection of this substance into the tissue of the iris, or into the anterior chamber, produce a myosis of two hours' duration Pilocarpine has a weak myotic action on the eye after death

In a very interesting paper on the treatment of *Hydatid Cysts of the Liver*, Dr L G Richelot, son of the present editor of the *Union Medicale*, lately published a paper in that journal on the subject He recommends the use of the aspiratory puncture, if only as a means of diagnosis The cyst should be entirely emptied to prevent effusion into the peritoneum In spite of all precautions, the liquid is reproduced, and it is only in exceptional cases that a complete cure is effected by the operation In the majority of cases, however, a relapse is the rule, after one or two punctures, the cyst suppurates, and then, in the event of a return of the disease, a free incision should be resorted to, instead of employing the aspirator, as the repeated use of the latter is not always inoffensive

The ostensible object of the aspirator or the employment of a free incision is to avoid the necessity of making an opening into the peritoneal cavity, but Dr Richelot is of opinion that this would be only tampering with the malady and losing valuable time He therefore recommends that at the very commencement, and when the diagnosis of a hydatid cyst of the liver has been established, a free incision into the peritoneum should be practised, employing at the same time the usual necessary precautions By this means the surgeon is enabled to examine the tumor more completely, and to decide as to the proper subsequent treatment that should be adopted When it is decided to cut through the peritoneum, Dr Richelot adopts the method of Volkmann, that is to say, a modified laparotomy, which is an operation not dangerous in itself, and it has the advantage of enabling the surgeon to see what he is doing

The author concludes his paper by laying down certain rules for the treatment of hydatid cysts of the liver which have returned after the capillary puncture 1 Free incision of the peritoneum with antiseptic precautions 2 Exploration of the tumor 3 Treatment of the cyst appropriate to its size and its connections

In a memoir by Dr Durand, of Lille, on *Cardiac Stimulants*, and to which a prize has been awarded by the Catholic Faculty of that city, the author gives some valuable information on adonidine, and compares its action with that of other drugs, such as digitalis, convallaria, and caffeine According to the author, adonidine acts on the heart somewhat like digitalis, but it possesses no cumulative properties, its diuretic effects are very marked, and it can be used for a long time without causing any symptoms of intolerance It should be given at a dose of 2 centigrammes, when the beats of the heart are irregular or unequal, digitalis is the best remedy, and adonidine is much less useful On the other hand the latter gives good results in all cases where the arterial tension is too low As a diuretic, caffeine is to be preferred

M Lafon describes, in a paper read by him at the Academy of Sciences, a *New Test for Codeine*, as follows If a trace of codeine be mixed with a solution of one gramme of ammonium selenite in twenty cubic centimetres of sulphuric acid, a beautiful green color is obtained, which gradually changes by oxidation to a reddish brown, one milligramme of codeine can be detected in this way The reaction is not yielded by any other active principle, alkaloid or glucoside, except morphine A B

DOMESTIC CORRESPONDENCE

CARBOLIC ACID INJECTIONS IN CARBUNCLE

To the Editor of the Journal

Dear Sir —In the number of The Journal for February 13, 1886, page 185, I noticed quotations from an article in the *Texas Medical Journal*, of November, 1885, in which Dr Wilkinson, of Galveston, states that for the last six or eight years he has used carbolic acid by injection in the treatment of carbuncle In connection with his suggestion I deem it proper to note the fact that in the *Toledo Medical and Surgical Journal*, for 1880, I published an article on this subject, of which the following extract is the conclusion

"It is now about two years and a half since a patient presented with two carbuncles, one on the back of the head, the other below it on the neck They were of moderate size only, the upper being open in three places, while in the lower the skin was unbroken

"Having considered the various known properties of carbolic acid, I determined to use it in the sinuses of the upper carbuncle, and to use it vigorously Loading my hypodermic syringe and passing the point through the opening and into the sloughing mass in every direction, I completely saturated it with the pure acid, and awaited results In a minute the smarting disappeared, and with it all pain and sense of soreness

"By this result emboldened, I again charged the instrument and thrusting it through the skin over the other carbuncle in a variety of places, I soaked the whole mass beneath the skin, enough of necessity escaping to fully bathe the borders, modify inflammation and destroy any septic elements there developed I waited not without concern, and was delighted to learn in a few moments that all pain and soreness was gone in this also The skin over the mass became quickly white, hard and dead, in a few days detaching in the form of slough, the interior mass also becoming loosened and only requiring the cutting of a few shreds to remove it, when the cavity was found to present a satisfactory appearance, and rapidly filling up left an exceedingly small cicatrix

"The remarkable feature in this case was that after the complete saturation of the carbunculous mass, no pain occurred, my patient going about his ordinary labor without discomfort It is now but a year since I treated another case in a similar manner, with similar results, the party suffering no pain or even soreness after the lapse of one minute following the injection

"In making this suggestion, which so far as I know is new, I am conscious of the insufficiency of my cases, but I am so sure of its efficiency that I shall at once resort to it when case and occasion offer, and advise others to do so, at least until the value of the measure is determined In conclusion, I would advise the use of pure acid only, and to complete saturation, dilution would increase, if not create, danger of absorption, converting a very simple procedure into one of great danger, and being insufficient, defeat the purpose for which it is used "

Since writing the above, experience has fully confirmed me in the correctness of all set forth, and I had come to regard it as an important fact and congratulated myself that I had at least, as a prior observer, given this much to my profession I care little about that point, however, but still think that I may claim that much But whoever was the first, it was independently used by me in the office in which I write this note, with some misgivings as to consequences Double discoveries are always possible, but in my case they have been quite striking I supposed myself to be the first to use the continuous pressure of rubber in chronic orchitis, applying the common rubber capote I also made from a pair of pruning shears the first costatome of which I ever heard, and that, too, long before any note of them appeared in the illustrated circulars of instrument manufacturers, and invented and had made a device by which the piston head in a syringe cylinder can be made larger and smaller at will without removal from the barrel These devices I showed freely to many traveling men and others, and soon the back counties were heard from Some fellow patented the syringe device, and it is now manufactured by Lutz, of Indianapolis, and offered to the profession with a flourish of trumpets as to its merits I have in my possession the original instrument, made years before the issuance of the patent, the merit of invention having been coolly filched from me

Truly yours, J T Woods, M D

Toledo, Ohio, February 28, 1886

TREATMENT OF CARBUNCLE

To the Editor of the Journal

Dear Sir —Your editorial remarks in The Journal of February 13, 1886, in regard to the treatment of carbuncle by the injection of carbolic acid, full strength, as suggested by C H Wilkinson, M D, in *Daniel's Medical Journal* for November, 1885, p 15, are timely, and the benefit of the treatment is confirmed by the success I have attained in the several cases in which I have used it A few facts in regard to my methods, additional to the carbolic acid treatment, may not be out of place I invariably test the urine for sugar when first undertaking the treatment of a patient for carbuncle If sugar be present, I put the patient on strict diabetic diet, and prescribe bromide of arsenic, three drops, twice a day, and inject the sinuses of the carbuncle with carbolic acid, full strength If I do not find sugar in the urine I conclude, as to the etiology of the disease, that it is the retention in the alimentary canal of excrementitious matter and the consequent poisoning of the system The diet is temporarily restricted, and cathartics administered until the stomach and bowels are thoroughly unloaded, after which I give

℞ Permanganate of potash gr ss
Water ℥ij
M Sig At once

and repeat the dose until I am satisfied that the alimentary canal is thoroughly disinfected I have never failed to cure carbuncle by this method, and thus far have not had a recurrence of the disease in a single case The following are the only cases I will claim space to report

Case 1 —Mrs McC, about 43 years of age, white, married, and the mother of one child She is of fine physique and generally good health She had suffered from carbuncle for a number of months, and had submitted to various methods of treatment, and about as soon as one carbuncle was cured, another made its appearance Each successive carbuncle appeared a little higher up the back, the last one being near the nape of the neck It was about three inches in diameter and had two sinuses The test of urine for sugar gave negative results I administered brisk cathartics and then gave permanganate of potash, and refused to cut the carbuncle In a few days she was well, and there has been no recurrence of the disease after the lapse of a year

Case 2 —On February 12, 1886, James Owens applied to me for treatment of carbuncle He was about 40 years of age, white, a native of Texas, unmarried, and a farmer The carbuncle was situated on the back, in the lumbar region and near the mesal line, and was three and one half inches in diameter There were three deep sinuses, and the parts were highly inflamed and painful He had lost flesh, had no appetite, and complained of giddiness I injected carbolic acid deeply into all three sinuses, gave him cathartics and followed them with permanganate of potash In a few days he reported himself well

I am convinced of the beneficent effects of the carbolic acid treatment, but to insure a non return of the malady, I am equally convinced of the necessity of disinfecting the alimentary canal, where sugar in the urine is not found among the etiological factors

I am, very truly, J W Carhart, M D

Lampasas, Texas

THE MECHANICAL TREATMENT OF THE VOMITING OF PREGNANCY

To the Editor of the Journal

Dear Sir —In Dr Joseph Taber Johnson's paper, read before the Medical Society of the District of Columbia, and published in The Journal of March 13, he says, on page 288 "In the *London Lancet*, uræmic convulsions, for example, nothing is said as to the use of morphia subcutaneously, which reminds us that the work is singularly deficient in references to American authors and their work The name of Dr Flint does occur in the index of authors, but his residence is given as *Philadelphia* But there are many names of European authors missing from the list which should appear in a pretentious work Again, in the treatment of peritonitis, while opium is recommended, nothing is said of the use of morphia, regarded by many practitioners as far preferable to opium Surely the work of Dr Alonzo Clark should have been thought worthy of mention in this place We read that "for the actual paroxysm of ague but little treatment is needed" On the contrary, very active treatment is often urgently necessary No reference is made to the fact that a subcutaneous injection of morphia will arrest the paroxysm, and prevent many of the disagreeable and it may be in some cases very injurious effects Hot water bottles are all well enough *after* the morphia has been given, if we choose to go to an unnecessary trouble (for they must be removed when the morphia takes effect) Singularly enough the use of mercury in small doses in pernicious anæmia, written of by an Englishman two years ago, is not mentioned In short, the treatment given throughout the book is unsatisfactory This, however, is what might be expected when we see that the references to German literature are so numerous

On the manner in which the etiology, diagnosis and pathology of diseases have been dealt with scarcely too much can be said in praise There are some who will take exception to the author's classification of Bright's disease, but an equal or greater number will concur in it The tests for albumin in the urine are insufficiently given, and should surely have been corrected by the Editor There are other very surprising omissions by the Editor Thus in the note on cholecystotomy his last reference to Lawson Tait's work in this field is to a paper published in 1880

It only remains to say that the work can only be recommended as one for reference, and for this it is of great value, especially for those who teach ante

Methods of Bacteriological Investigation Dr Ferdinand Hueppe, Docent in Hygiene Bacteriology in the Chemical Laboratory of senius, at Wiesbaden Translated by Her- Biggs, M D, Instructor in the Carne- ratory, etc, Illustrated Pp 218 New Appleton & Co, 1886

have appeared in the last

this is one of t

learned fr

ous

lems Special Hygienic Investigation Bacteriology as an Object of Instruction

In this book all the approved methods of investigation have been described The translation is good For those desiring to work in this field no better book could be had

ASSOCIATION ITEMS

MEMBERS BY APPLICATION AND THE ANNUAL MEETING

I have received several letters from gentlemen who have become members of the Association by application under the provision recently enacted, desiring information as to their status at the annual meetings of the Association I have also been the recipient of inquiries from others who wish to become members at the coming meeting at St Louis through the same channel, that is by application I will briefly say that those who are already members of the Association, under the new regulation allowing members of State and local societies to become such upon application endorsed by the President and Secretary of such society, are Permanent Members of the Association, and continue as such so long as they remain in good standing in their State or local society and pay their annual dues to the Association When they attend an annual meeting, they register either as delegates from their original Society, if they have been so elected (with the right of voting), or as Permanent Members (without the right of voting)

Gentlemen who wish to become members of the Association by application at the St Louis meeting, and who do not attend as delegates, will fill up the usual registration blanks, and present, with the five dollars for dues, a certificate signed by the President and Secretary of their State or local Society, stating that they are members, in good standing, of such Society

As vacancies doubtless exist in some of the delegations to St Louis in different parts of the country, possibly some of the Permanent Members and also those desirous of becoming such by application, may be able to obtain appointment as delegates to fill such vacancies

Richard J Dunglison, M D,
Treasurer

Philadelphia, April 13, 1886

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo, on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment ermanently organized State Medical Societies and District Medical Societies *as tion in their respective* epartment of ital Service of disease and death as may be useful in the discharge of the duties of said Board It shall be the duty of all local boards of health, health authorities and officials, officers of State institutions, police officers, sheriffs, constables, and all other officers and employés of the State, or any county, city or town thereof, to make and enforce such quarantine and sanitary rules and regulations, as the public health may require, in so far as the success and efficiency of the Board of Health may depend thereon, and in the event of failure or refusal on the part of any member of said Boards, or other officials or persons in this section mentioned to so act, he or they shall be subject to a fine of not less than fifty dollars upon first conviction, and upon a conviction of second offense of not less than one hundred dollars

Sec 3 The Board of Health shall have supervision of the State system of registration of births and deaths, they shall make up such forms and recommend such legislation as shall be deemed necessary for the thorough registration of vital and mortuary statistics throughout the State The Secretary of the Board shall be the superintendent of such registration The clerical duties and the safe keeping of the bureau of vital statistics thus created shall be provided by the Secretary of State

Sec 4 It shall be the duty of boards of health, health authorities or officials, and of physicians in localities where there are no health authorities or officials, to report to the State Board of Health, promptly upon discovery thereof, the existence of any one of the following diseases which may come under their observation, to wit Asiatic cholera, yellow fever, small-pox, scarlet fever, diphtheria, typhus fever, and of such other contagious or infectious diseases as the State Board may from time to time specify

Sec 5 All amounts recovered under the penalties herein provided, shall be appropriated to a special fund for the carrying out of the object of this law

Sec 6 The first meeting of the Board shall be within thirty days after their appointment, and thereafter in January and June of each year, and at such other times as the Board shall deem expedient The meeting in January of each year shall be in Columbus A majority shall constitute a quorum They shall choose one of their number to be president, and they may adopt rules and by laws for their government, subject to the provisions of this act

Sec 7 They shall elect a Secretary who shall perform the duties prescribed by the Board and by this act, and who shall upon cause, be removed by a majority vote, he shall receive a salary not exceeding $1600, which shall be fixed by the Board, he shall also receive his traveling and *other expenses incurred* in the performance of his official duties The other members of the Board shall receive five dollars per day, and their traveling and other expenses while employed on business of the Board The President of the Board shall, quarterly, certify the amount due the members, and on presentation of his certificate the Auditor of State shall draw his warrant on the Treasurer for the amount

Sec 8 It shall be the duty of the Board of Health to make an annual report, through their Secretary or otherwise, in writing, to the Governor of the State, on or before the 1st day of November of each year, and such report shall include so much of the proceedings of the Board, and such information concerning vital statistics, such knowledge respecting diseases, and such instructions on the subject of hygiene, as may be thought useful by the Board for dissemination among the people, with such suggestions as to legislative action as they may deem necessary

Sec 9 The sum of five thousand dollars ($5000 - 00), or so much thereof as may be necessary, is hereby appropriated to pay the salary of the Secretary, meet the contingent expenses of the office of the Secretary, and expenses of the Board, and all costs of printing, which, together, shall not exceed the sum hereby appropriated, said expenses shall be certified and paid in the same manner as the salary of the Secretary

Sec 10 The Adjutant general shall provide rooms suitable for the meetings of the Board, and office room for the Secretary

Sec 11 This act shall take effect and be in force from and after its passage

BOOK REVIEWS

The Principles and Practice of Medicine By the late Charles Hilton Fagge, M D , F R C P , Physician to, and Lecturer on Pathology at, Guy's Hospital, Examiner in Medicine in the University of London, Senior Physician to the Evelina Hospital for Sick Children, etc Edited by P H Pye-Smith, M D , F R C S , Lecturer on Medicine at Guy's Hospital, including a Section on Cutaneous Diseases, by the Editor, Dr Pye Smith , Chapters on Cardiac Diseases, by Samuel Wilkes, M D , F R S , Physician to Guy's Hospital and to the Royal Hospital for Children London, and Complete Indexes, by Robert Carrington, M D , Assistant Physician to Guy's Hospital, London Vol II, pp XVI, 17–883 Philadelphia P Blakiston, Son & Co 1886

This, the second volume of Dr Fagge's work, deals with diseases of the Heart, the Digestive Organs, Liver, Spleen, and Kidneys, and of the Bones, Joints, Blood and Skin There is, we think, more to be said in praise of this than of the first volume Much of the matter in the second volume is by writers who have had the opportunity of revising their own proof-sheets, and what they have written was only recently written, whereas much of the matter written by Dr Fagge was prepared some time before his death Many of the sections were left in an unfinished state at his death, and these have been completed, in an admirable manner, by the Editor and Dr Wilkes, and at times it is rather difficult to say whether we are reading after Dr Fagge, Dr Pye Smith, or Dr Wilkes

In many respects this work is very valuable for reference Of the treatment advised in it there is but little to be said In discussing the treatment of for February, 1878, Dr M O Jones, of Chicago (who now resides in Pittsburgh, Pa), published a paper on 'Vomiting of Pregnancy,' and advocated in certain cases the local application of the nitrate of silver to the os uteri as a cure This mode of treatment *could not have originated* with Dr Jones, as Dr Marion Sims reported a case a number of years prior to Jones's paper "in which he cured a noble lady of Paris who had been given over to die by a number of eminent physicians, who had religious scruples against the induction of abortion Sims reports that from the first application the relief was marked, and in a few days she was completely cured The recovery was heralded as little less than a miracle "

Dr J Taber Johnson *could not have* read the paper mentioned, else he *would not* have fallen into an error If Dr Johnson will refer to a number of the *Lancet*, of February, 1878, containing my paper, or to the American reprint of the *Lancet*, May, 1878, he will find what Dr Sims wrote upon the subject in his notes of a case appended to my paper His preliminary remarks to, and the closing paragraph of his notes, I will quote in full

"*Notes of a Case by Marion Sims* —I had the good fortune to meet Dr Jones, of Chicago, last June (1877), when he incidentally related to me his experience in the treatment of the vomiting of pregnancy I thought the matter of so much importance that I begged him to write it out for publication Accordingly he sent me the foregoing paper, which I received just as I was leaving home, and not having time to arrange for its publication then, I now send it to *The Lancet* I am not in the way of seeing much of this affection, but a case came under my observation a *few days* ago so strongly confirmatory of Dr Jones's views, that I take the liberty of appending it to *his paper* After relating the case he closes by saying 'If Dr Jones's treatment acts as promptly in all other cases as it did in mine, the profession will certainly feel grateful to him for it '"

Dr Johnson, after referring to Dr Sims's case, says "I have had one such case, and was greatly surprised by my perfect success in curing a patient who had been confined to bed for two weeks The efforts to vomit continued and were not relieved until the nitrate of silver was applied She immediately became better, and the vomiting soon stopped, and she finally gave birth to a fine healthy child " I am glad to learn of Dr Johnson's successful treatment of a case of vomiting in pregnancy by the means suggested in my paper, and would suggest that had the same treatment been employed in the case of Mrs X , of his paper, she might have been delivered at full time of a "fine healthy child " I remain very truly, M O Jones, M D

Pittsburgh, Pa , March 27

GIFTS TO DOCTORS FROM PATIENTS

To the Editor of the Journal

Dear Sir —The case of Woodbury *vs* Woodbury, decided by the Supreme Court of Massachusetts March 10, 1886, is one of some importance to medical men In that case the intestate before her death gave to the defendant certain sums of money, and the evidence tended to show that previous to and at the time of the gift the intestate was in a feeble mental condition and of advanced age The defendant was the physician, friend, adviser, and fiducial agent of the intestate, managed her affairs, and had considerable influence over her He was not a relative of the intestate Upon this state of facts it was held that the evidence, if believed by the jury, would justify a finding that the defendant in some form solicited the gift and used undue influence to obtain it, and that undue influence may be inferred from the nature of a transaction alone

There can be no doubt of the correctness of this decision Physicians who, under such circumstances, accept gifts from their patients, assume the burden of showing affirmatively the entire fairness of the transaction and that no undue influence has been used M D Ewell, M D,

Medico Legal Counsel

170 Washington St , April 9, 1886

STATE MEDICINE

STATE BOARD OF HEALTH OF OHIO

The following is the Bill recently passed to create and establish a State Board of Health in the State of Ohio

Section 1 *Be it enacted by the General Assembly of the State of Ohio,* That the Governor, with the advice and consent of the Senate, shall appoint seven persons, who (with the attorney-general, who shall be *ex officio* a member of said Board) shall constitute the State Board of Health, provided, that the terms of office of the seven first appointed shall be so arranged that the term of one shall expire on the 13th day of December of each year, and the vacancies so created, as well as all vacancies occurring otherwise, shall be filled by the Governor, with the advice and consent of the Senate, and provided also, that appointments made when the Senate is not in session, may be confirmed at its next ensuing session

Sec 2 The State Board of Health shall have the supervision of the interests of the health and life of the citizens of the State They shall make careful inquiry in respect to the cause of disease, and especially the invasion or spread of any infectious or contagious, epidemic, or endemic disease, and investigate the sources of mortality, and the effects of localities, employments, conditions, ingesta habits, and surroundings on the health of the people, and shall investigate the causes of diseases occurring among the stock and domestic animals of the State, the methods of remedying the same by quarantine or otherwise, and shall gather information in respect to such matters, and kindred subjects for dissemination among the people They shall advise officers of Government, or other State Boards, in regard to the location, drainage, water supply, disposal of excreta, heating and ventilating of public buildings They shall collect and preserve such information relating to forms of disease and death as may be useful in the discharge of the duties of said Board It shall be the duty of all local boards of health, health authorities and officials, officers of State institutions, police officers, sheriffs, constables, and all other officers and employés of the State, or any county, city or town thereof, to make and enforce such quarantine and sanitary rules and regulations, as the public health may require, in so far as the success and efficiency of the Board of Health may depend thereon, and in the event of failure or refusal on the part of any member of said Boards, or other officials or persons in this section mentioned to so act, he or they shall be subject to a fine of not less than fifty dollars upon first conviction, and upon a conviction of second offense of not less than one hundred dollars

Sec 3 The Board of Health shall have supervision of the State system of registration of births and deaths, they shall make up such forms and recommend such legislation as shall be deemed necessary for the thorough registration of vital and mortuary statistics throughout the State The Secretary of the Board shall be the superintendent of such registration The clerical duties and the safe-keeping of the bureau of vital statistics thus created shall be provided by the Secretary of State

Sec 4 It shall be the duty of boards of health, health authorities or officials, and of physicians in localities where there are no health authorities or officials, to report to the State Board of Health, promptly upon discovery thereof, the existence of any one of the following diseases which may come under their observation, to wit Asiatic cholera, yellow fever, small-pox, scarlet fever, diphtheria, typhus fever, and of such other contagious or infectious diseases as the State Board may from time to time specify

Sec 5 All amounts recovered under the penalties herein provided, shall be appropriated to a special fund for the carrying out of the object of this law

Sec 6 The first meeting of the Board shall be within thirty days after their appointment, and thereafter in January and June of each year, and at such other times as the Board shall deem expedient The meeting in January of each year shall be in Columbus A majority shall constitute a quorum They shall choose one of their number to be president, and they may adopt rules and by laws for their government, subject to the provisions of this act

Sec 7 They shall elect a Secretary who shall perform the duties prescribed by the Board and by this act, and who shall upon cause, be removed by a majority vote, he shall receive a salary not exceeding $1600, which shall be fixed by the Board, he shall also receive his traveling and *other expenses incurred* in the performance of his official duties The other members of the Board shall receive five dollars per day, and their traveling and other expenses while employed on business of the Board The President of the Board shall, quarterly, certify the amount due the members, and on presentation of his certificate the Auditor of State shall draw his warrant on the Treasurer for the amount

Sec 8 It shall be the duty of the Board of Health to make an annual report, through their Secretary or otherwise, in writing, to the Governor of the State, on or before the 1st day of November of each year, and such report shall include so much of the proceedings of the Board, and such information concerning vital statistics, such knowledge respecting diseases, and such instructions on the subject of hygiene, as may be thought useful by the Board for dissemination among the people, with such suggestions as to legislative action as they may deem necessary

Sec 9 The sum of five thousand dollars ($5000 00), or so much thereof as may be necessary, is hereby appropriated to pay the salary of the Secretary, meet the contingent expenses of the office of the Secretary, and expenses of the Board and all costs of printing, which, together, shall not exceed the sum hereby appropriated, said expenses shall be certified and paid in the same manner as the salary of the Secretary

Sec 10 The Adjutant general shall provide rooms suitable for the meetings of the Board, and office room for the Secretary

Sec 11 This act shall take effect and be in force from and after its passage

---

BOOK REVIEWS

The Principles and Practice of Medicine By the late Charles Hilton Fagge, M D , F R C P , Physician to, and Lecturer on Pathology at, Guy's Hospital, Examiner in Medicine in the University of London, Senior Physician to the Evelina Hospital for Sick Children, etc Edited by P H Pye-Smith, M D , F R C S , Lecturer on Medicine at Guy's Hospital, including a Section on Cutaneous Diseases, by the Editor, Dr Pye Smith , Chapters on Cardiac Diseases, by Samuel Wilkes, M D , F R S , Physician to Guy's Hospital and to the Royal Hospital for Children London, and Complete Indexes, by Robert Carrington, M D , Assistant Physician to Guy's Hospital, London Vol II, pp XVI, 17–883 Philadelphia P Blakiston, Son & Co 1886

This, the second volume of Dr Fagge's work, deals with diseases of the Heart, the Digestive Organs, Liver, Spleen, and Kidneys, and of the Bones, Joints, Blood and Skin There is, we think, more to be said in praise of this than of the first volume Much of the matter in the second volume is by writers who have had the opportunity of revising their own proof-sheets, and what they have written was only recently written, whereas much of the matter written by Dr Fagge was prepared some time before his death Many of the sections were left in an unfinished state at his death, and these have been completed, in an admirable manner, by the Editor and Dr Wilkes, and at times it is rather difficult to say whether we are reading after Dr Fagge, Dr Pye Smith, or Dr Wilkes

In many respects this work is very valuable for reference Of the treatment advised in it there is but little to be said In discussing the treatment of uræmic convulsions, for example, nothing is said as to the use of morphia subcutaneously, which reminds us that the work is singularly deficient in references to American authors and their work The name of Dr Flint does occur in the index of authors, but his residence is given as *Philadelphia* But there are many names of European authors missing from the list which should appear in a pretentious work Again, in the treatment of peritonitis, while opium is recommended, nothing is said of the use of morphia, regarded by many practitioners as far preferable to opium Surely the work of Dr Alonzo Clark should have been thought worthy of mention in this place We read that "for the actual paroxysm of ague but little treatment is needed" On the contrary, very active treatment is often urgently necessary No reference is made to the fact that a subcutaneous injection of morphia will arrest the paroxysm, and prevent many of the disagreeable and it may be in some cases very injurious effects Hot water bottles are all well enough *after* the morphia has been given, if we choose to go to an unnecessary trouble (for they must be removed when the morphia takes effect) Singularly enough the use of mercury in small doses in pernicious anæmia, written of by an Englishman two years ago, is not mentioned In short, the treatment given throughout the book is unsatisfactory This, however, is what might be expected when we see that the references to German literature are so numerous

Of the manner in which the etiology, diagnosis and pathology of diseases have been dealt with scarcely too much can be said in praise There are some who will take exception to the author's classification of Bright's disease, but an equal or greater number will concur in it The tests for albumin in the urine are insufficiently given, and should surely have been corrected by the Editor There are other and very surprising omissions by the Editor Thus in a foot-note on cholecystotomy his last reference to Lawson Tait's work in this field is to a paper published in 1880

It only remains to say that the work can only be recommended as one for reference, and for this it is one of great value, especially for those who teach or write

THE METHODS OF BACTERIOLOGICAL INVESTIGATION By DR FERDINAND HUEPPE, Docent in Hygiene and Bacteriology in the Chemical Laboratory of R Fresenius, at Wiesbaden Translated by HERMANN M BIGGS, M D, Instructor in the Carnegie Laboratory, etc Illustrated Pp 218 New York D Appleton & Co 1886

Of the many books that have appeared in the last year or two on this subject, this is one of the best The scope of the book can be learned from the following main headings Spontaneous Generation and the Principles of Sterilization Forms of Bacteria and Microscopic Technique Culture Methods Pure Cultures Inoculations for the Determination of the Causal Relations of Bacteria Growth to Decomposition and Disease General Biological Problems Special Hygienic Investigation Bacteriology as an Object of Instruction

In this book all the approved methods of investigation have been described The translation is good For those desiring to work in this field no better book could be had

---

ASSOCIATION ITEMS

MEMBERS BY APPLICATION AND THE ANNUAL MEETING

I have received several letters from gentlemen who have become members of the Association by application under the provision recently enacted, desiring information as to their status at the annual meetings of the Association I have also been the recipient of inquiries from others who wish to become members at the coming meeting at St Louis through the same channel, that is by application I will briefly say that those who are already members of the Association, under the new regulation allowing members of State and local societies to become such upon application endorsed by the President and Secretary of such society, are Permanent Members of the Association, and continue as such so long as they remain in good standing in their State or local society and pay their annual dues to the Association When they attend an annual meeting, they register either as delegates from their original Society, if they have been so elected (with the right of voting), or as Permanent Members (without the right of voting)

Gentlemen who wish to become members of the Association by application at the St Louis meeting, and who do not attend as delegates, will fill up the usual registration blanks, and present, with the five dollars for dues, a certificate signed by the President and Secretary of their State or local Society, stating that they are members, in good standing, of such Society

As vacancies doubtless exist in some of the delegations to St Louis in different parts of the country, possibly some of the Permanent Members and also those desirous of becoming such by application, may be able to obtain appointment as delegates to fill such vacancies

RICHARD J DUNGLISON, M D,
Treasurer

Philadelphia, April 13 1886

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo, on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By-Laws*, Art 11, Sec 4.

Practice of Medicine, Materia, Medica and Physiology —Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky , *Secretary*

Obstetrics and Diseases of Women and Children —Dr S C Gordon, Portland, Me , *Chairman*, Dr J F Y Paine, Galveston, Texas *Secretary*

Surgery and Anatomy —Dr Nicholas Senn, Milwaukee, Wis , *Chairman*, Dr H H Mudd, St Louis, Mo , *Secretary*

State Medicine —Dr John H Rauch, Springfield, Ill , *Chairman*, Dr F E Daniel, Austin, Texas, *Sec'y*

Ophthalmology, Otology, Laryngology —Dr Eugene Smith, Detroit, Mich , *Chairman*, Dr J F Fulton, St Paul, Minn , *Secretary*

Diseases of Children —Dr W D Haggard, Nashville, Tenn *Chairman*, Dr W B Lawrence Batesville, Ark *Secretary*

Oral and Dental Surgery —Dr John S Marshall, Chicago Ill., *Chairman*, Dr A E Baldwin, Chicago, Ill , *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting —*By-Laws*

Committee of Arrangements —Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich —Each Section shall nominate its Chairman and Secretary—all other nominations to be made as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence

Wm B Atkinson, M D ,
Permanent Secretary
1400 Pine St , S W cor Broad, Philadelphia.

The Section on Practical Medicine —The Chairman of the Section on Practice, Physiology and Materia Medica begs to call the attention of members to the unusual array of essays and reports to be presented at the ensuing convention at St Louis Papers are already announced by Drs Wm Pepper, of Philadelphia, on "Nitrate of Silver in Catarrhal Jaundice," L Duncan Bulkley, of New York, on "The Treatment of Felon without Incision," C Warrington Earle, of Chicago, on "Pancreatic Anæmia," L Bremer, of St Louis, on "Essential Vertigo," Albert C Haven, of Lake Forest, Ill , on the "Etiology of Disease," Jno B Elliott, of New Orleans, on "Fever," F H Patten of the National Military Home of Dayton, Ohio, on "Pneumonia in the Old," Philip Zenner, of Cincinnati, on the "Diagnostic Value of the Patellar Tendon Reflex," A F Pattee of Boston, on "Potassium Chloride," O F Schultz, of Mt Vernon, Ind , on the "Use of Antipyretic Doses of Quinia in Typhoid Pneumonia," Edward F Wells, of Minster, O , on "Pneumonia in Pregnancy," and Frederick N Huehn, of Rockland, Maine, on "The Effects of Certain Physiological Principles hitherto Unnoticed in Aid of the Circulation of the Blood "

The session of May 6 will be partly devoted to a demonstration with the cabinet of the principles of "Pneumatic Differentiation," by H F Williams, of Brooklyn, to be followed by a general discussion of pneumatic methods to be opened by E Fletcher Ingals, of Chicago

Some time during the convention, date to be announced, Dr Joseph Jones, of New Orleans, will give a brief record of sixteen years' clinical experience in the Charity Hospital of New Orleans, and Dr S S Laws will read a paper on "The Life and Labors of Louis Pasteur "

The mention of the subjects to be presented with the names of the authors, must command unusual attendance and interest in the work of this Section

J T Whittaker, M D ,
Chairman

April 19, 1886

Railway Certificates to the Association Meeting—Special Notice —To delegates and others who will attend the meeting of the American Medical Association, St Louis, May 4 to 8 Parties located east of Buffalo, Niagara Falls, Pittsburgh and Parkersburg, will apply by mail to Secretary of Trunk Line Committee, 346 Broadway, N Y , for certificates Parties west of points named above and east of the Mississippi River, and north of the Ohio River, will apply to Geo H Daniels, Commissioner C P C , Chicago Ill , for certificates Parties south of the Ohio River, and east of the Mississippi River, will apply to M Slaughter, Commissioner, Richmond, Va. Parties from Missouri River points, and from Chicago, will apply to E P Wilson, Arbitrator, Chicago Points in the west and local points on the lines centering in St Louis will be arranged for, by agent at starting point or upon arrival here

Delegates in making application to the above named persons for a certificate, must not forget to enclose a two cent stamp to pay postage on the return letter enclosing to them the certificate This must be done to insure the certificate being sent.

Any delegate who fails, after making every effort, to get a certificate in due form, will take a receipt from the ticket agent at the point from which he starts, for amount of full fare paid by him, coming to the meeting, and in this receipt be particular to have named the form and number of ticket, and the road over which he will come If not directly on one of the lines entering into this arrangement of reduced rates, pay your fare only to it, and then pay your full fare from that point, securing your certificate or receipt as above directed State, County or City Societies can apply for the number of certificates they may wish, and have the number wanted sent in one envelope instead of applying individually

Round trip tickets from Chicago, Ill, also from New York (339 Broadway), Richmond, Va, and Washington City, D C, by Chesapeake & Ohio Railroad, from Philadelphia via Penn Central and B & O

Members of the American Medical Association, or members of any medical societies, who may see the above, will please report it to individual members, or their societies, and try to get a notice of same in their city or county newspaper

R M JORDAN, M D,
Chairman Transportation Committee
St Louis Mo

RAILWAY FACILITIES TO THE ASSOCIATION MEETING —The regular through trains of the Illinois Central Railroad from Chicago to St Louis will afford excellent accommodations for delegates who wish to attend the meeting of the American Medical Association at St Louis the first week in May The night express, with Pullman sleeping cars, leaves Chicago at 8 30 P M, and arrives in St Louis at 7 A M The rates are $7 50 round-trip

The rates on the Baltimore and Ohio Railway for those coming from the East and South east are full fare coming and one third fare returning

The Illinois Central, Chicago and Alton, and the Wabash Railways have agreed to fix the rates from Chicago to the meeting of the Association, for members, at $7 50 *round trip*

RUSH MONUMENT COMMITTEE —The standing committee, charged with the erection of a monument in the city of Washington, to Dr Benjamin Rush, by the members of the profession of Medicine in the United States, will meet on Monday, May 3d, at 4 o'clock P M, in the large parlor of the Lindell House, St Louis, Mo, which will be the headquarters of the committee during the session of the Association

ALBERT L GIHON, M D,
Chairman
GEORGE H ROHE, M D, *Sec'y*

RAILROAD FARES —The Boston & Albany Rail road will, upon application at their office, 232 Washington St, Boston, sell to delegates and *their families* tickets to St Louis and return for one and one-third fares for round trip A parlor car, to run through from Boston to St Louis, will be attached to the train leaving Boston at 3 P M, May 1st

MISCELLANEOUS

AMERICAN PUBLIC HEALTH ASSOCIATION —The Fourteenth Annual Meeting of the American Public Health Association will be held at Toronto, Ont, October 5–8, 1886 The Executive Committee have selected the following topics for consideration at said meeting

1 The Disposal of the Refuse Matters of Cities and Towns

2 The condition of stored Water-supplies, and their relation to the Public Health

3 The Best Methods and the Apparatus Necessary for the Teaching of Hygiene in the Public Schools, as well as the Means for Securing Uniformity in such Instruction

4 Recent Sanitary Experiences in connection with the Exclusion and Suppression of Epidemic Disease

5 The Sanitary Conditions and Necessities of School-houses and School-life (See Lomb Prize Essays)

6 The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the best Means and Appliances for Preventing And avoiding them (See Lomb Prize Essays)

7 Plans for Dwelling houses (See Lomb Prize Essays)

All persons who propose to present papers at the next meeting of the Association will be governed by the following order, enacted by the Executive Committee at Washington, D C, Dec 7, 1885 "That all papers hereafter presented to the Association must be either printed, type written, or in a plain hand writing, and be in the hands of the Secretary at least twenty days prior to the annual meeting" This order will be strictly enforced, and no paper will be read at the said meeting that has not been received, examined, and approved by the Executive Committee Invitations extended to individuals to prepare papers for the Association do not imply their acceptance by the Committee, merit alone determining that question Papers that have been published will not be received

The Local Committee of Arrangements at Toronto, Ont, have already actively begun the work essential to a large and successful meeting In addition to the usual work incident to such an undertaking, they will extend invitations to foreign sanitarians, and secure such transportation facilities as will probably ensure a good representation from abroad Communications regarding matters of transportation or of a local character should be addressed to Peter H Bryce, M D, Chairman Local Committee of Arrangements, Toronto, Ont The cooperation of all persons interested in the public health, or in any subject allied to sanitary science, is respectfully solicited A circular giving full and concise information regarding local matters, programme, transportation, etc, will be issued in due season before the meeting

The Lomb Prize Essays —Mr Henry Lomb, of Rochester, N Y, who is already well known as a public benefactor through the prizes which he gave last year for the best essays on certain sanitary subject, offers for the present year the sum of $1750 to be awarded as prizes on the following subjects, as per conditions mentioned elsewhere

1 The Sanitary Conditions and Necessities of School Houses and School-Life   One Prize, $500

The object of the essays must be to furnish the most complete paper possible, embracing as far as may be all the details allied to the subject

Committee of Award—Dr E M Moore, President State Board of Health, Rochester, N Y , Medical Director Albert L Gihon, U S Navy, Major Charles Smart, Surgeon U S A , Prof C A Lindsley, Secretary State Board of Health, New Haven, Ct , Dr J T Reeve, Secretary State Board of Health, Appleton, Wis

2 The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the best Means and Appliances for Preventing and Avoiding them   One prize, $500

Under this head, the conditions and necessities of the American mechanic are to be especially considered, and the thorough consideration of a class will be regarded of more value by the judges than a superficial review of the whole field   Original investigations will weigh much in awarding the prizes, while compilations from existing literature or foreign statistics will not find favor with the Committee of Awards

Committee of Award—Dr Granville P Conn, President of State Board of Health, Concord, N H , Dr John Fallon, Member State Board of Health, Lunacy, and Charity, Lawrence, Mass , Dr Stephen Smith, New York City, Crosby Gray, Esq , Pittsburgh, Penn , Dr C W Chancellor, Secretary State Board of Health, Baltimore, Md

3 Plans for Dwelling-Houses

(a) A plan for a dwelling-house not to exceed in cost, exclusive of cellar, $800   Prizes   First, $200, second, $100, third, $50, fourth, $25

(b) A plan for a dwelling house not to exceed in cost, including the cellar, $1600   Prizes   First, $200, second, $100, third, $50, fourth, $25

Accommodations to be provided for families consisting of five persons

Committee of Award—Major John S Billings, LL D , U S A , Washington, D C , Col George E Waring, Jr , C E , Newport, R I , Dr E M Hunt, Secretary State Board of Health, Trenton, N J , Dr J H Raymond, Brooklyn, N Y , Prof Charles N Hewitt, Secretary State Board of Health, Red Wing, Minn

Specifications Regarding Plans for Dwelling-Houses—The features which will have especial weight with the committee of award will be   1 Ventilation   2 Drainage and other sanitary appointments   3 Convenience of arrangements   Each design to be represented by the following drawings

1 A plan of the principal story
2 A plan of second story (if present)
3 A longitudinal section
4 A front elevation and drawings of such details as may be required to illustrate any peculiar features of the design   The drawings are to be made all upon one sheet of paper, and comprised within a rectangle of 17½ by 24 inches

They are to be made at a uniform scale of four feet to the inch, except those representing details, and are to be made by lines, in India ink, without color or washes   Shading, if any is to be obtained by India ink lines

The drawings are to be accompanied by a concise, clear description of the arrangements and materials of construction, together with a detailed estimate of the cost of construction, which is to comprise Masonry work, Plastering, Iron work, Carpenter work, Roofing and Painting, Plumbing work, Sanitary appointments, and other required work and materials, and contingent expenses required to render the building ready for occupancy   The estimate to be given for each of the kinds of work above named, separately   The estimates to be made in good faith, from trustworthy data, and to be based upon the present market prices of material and labor in Albany, N Y   The prices made use of to be given in full detail to enable comparisons to be made for different localities, plumbing to be based upon the supposed use of pump, and estimate to cover so much of pipes and drains as will be within the walls

Object of this competition is to secure a general statement of the whole question of the best arrangements, both in economical and sanitary points of view, for housing the working classes

The name of the author of the design is not to appear upon the drawings, or upon anything accompanying them

Each drawing is to be marked with a selected word or sentence, used as a motto to distinguish the design from others   This motto, written on paper, together with the author's name, is to be enclosed within a sealed envelope, and this sealed envelope is to be enclosed within a second envelope, sealed and endorsed, with the word or motto, only, placed upon the drawing

Each design, together with the description and estimate, is to be enclosed within a tube of metal or very stout paper—the tube not less than two inches diameter—and sealed and forwarded to the Secretary

Conditions   All essays and plans for the above prizes must be in the hands of the Secretary, Dr Irving A Watson, Concord, N H , on or before Aug 15, 1886   Each essay must bear a motto, and have accompanying it a securely sealed envelope containing the author's name and address, with the same motto upon the outside of the envelope

After the prize essays and plans have been determined upon, the envelopes bearing the mottos corresponding to the prize essays or plans will be opened, and the awards made to the persons whose names are found within them   The remaining envelopes, unless the corresponding essays or plans are reclaimed by authors or their representatives within thirty days after publication of the awards, will be destroyed unopened by the Secretary

The Committees of Award are empowered to reject all papers and plans, if in their opinion none are worthy of a prize   The essays and plans awarded the prizes are to become the property of the American Public Health Association

None of the members of the Committees of Award will be allowed to compete for a prize on the subject upon which they are to pass judgment

The awards will be announced the first week in October, 1886, at the annual meeting of the American Public Health Association

It is intended that the above essays shall be essentially American in their character and application, and this will be considered by the judges as an especial merit

Competition is open to authors of any nationality, but all the papers must be in the English language

While the privileges of competing for the Lomb Prizes is open to all persons, it should be remembered that the highest standard of excellence will be required to win

Per order Executive Committee

Irving A Watson,
Secretary

National Sanitary Convention —A Sanitary Convention, the object of which will be to afford an opportunity for an expression of opinion on matters relating to the public health and the discussion of methods looking towards an advancement in the sanitary condition of the Commonwealth, the prevention of sickness and avoidable death, and the improvement of the conditions of living, will be held in Philadelphia, under the auspices of the State Board of Health, on Wednesday, Thursday, and Friday, May 12, 13, and 14, 1886

The following will be among the subjects that will be discussed by prominent Sanitarians 1 The Sanitary Needs of School Buildings and Grounds 2 The Water Supply of Towns and Cities 3 The Water Supply of Philadelphia 4 The Disposal of Slops, Garbage, Refuse, etc 5 The Prevention of Communicable Diseases 6 The Influence of Clothing on Health 7 Ventilation 8 The Drainage and Sewerage of Cities and Town 9 The Drainage and Sewerage of Philadelphia 10 The influence of Diet on Health 11 The Relations of Christianity to Health 12 Mistakes in School Architecture 13 Defective Vision in School Children Causes and Management 14 The Necessities of Physical Education 15 Drainage and Sewerage in Country Districts 16 Sanitary Science in Villages 17 Municipal Sanitation 18 Artificial Feeding of Infants 19 Condensed Milk 20 Various Artificial Baby Foods 21 The Inheritance of Disease 22 Hygiene of the Home 23 Sanitary Plumbing and Drainage 24 Tests for Impurities in Water The Use of Filters 25 Germicides 26 Vaccination 27 The Hygiene of Old Age 28 Cholera 29 City *versus* Country Life, from a hygienic point of view

The public are cordially invited to take part in and help to make a success of this Convention A circular of details will be issued at a later date

Joseph F Edwards, M D,
Chairman Committee of Arrangements
224 S 16th St, Philadelphia, Pa

The Association of American Medical Editors will meet in St Louis on Monday evening, May 3, time and place to be announced There will be a banquet, and each member is expected to contribute to the expenses

Medical Association of the District of Columbia —At a stated meeting of the Medical Association, District of Columbia, held on the 6th inst, the following were elected officers for the ensuing year

President—Dr J M Toner
First Vice-President—Dr J W Bulkley
Second Vice President—Dr Geo Byrd Harrison
Secretary—Dr Lachlan Tyler
Treasurer—Dr S S Adams

George N Powers, M D, has been appointed Professor of Ophthalmology and Otology in the Medical Department of the University of California, to fill the vacancy occasioned by the recent death of Professor A M Wilder, at San Francisco

New York State Medical Association—Fifth District Branch —The fourth special meeting of the Fifth District Branch will be held in Kingston, on Tuesday, June 15, 1886 All Fellows are cordially invited to contribute to the meeting, either by reading papers, notes or communications, or by exhibiting specimens The Secretary will be glad to receive the title of any proposed paper as early as convenient E H Squibb, M D *Sec'y*
P O Box 94, Brooklyn, N Y

Hæmorrhage after Uvulotomy —Dr E Carroll Morgan, 918 E St, N W, Washington, D C, wishes to collect recorded and unrecorded cases of this accident, in order to publish a monograph on the subject

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM APRIL 10 1886 TO APRIL 16 1886

Capt J H Patzki, Asst Surgeon, relieved from duty at Jackson Bks, La, and ordered for duty as Post Surgeon at Mt Vernon Bks, Ala (S O 75, Dept East April 12, 1886)

Capt Jno Van R Hoff, Asst Surgeon, leave of absence extended for eleven months, with permission to leave the United States (S O 85, A G O, April 12, 1886)

Capt Richard Barnett, Asst Surgeon, granted leave of absence for two months (S O 16, Div Atlantic, April 12, 1886)

Capt H P Birmingham, Asst Surgeon (Camp Grant, New York City), temporarily assigned to duty at Ft Columbus, New York Harbor (S O 72, Dept East, April 8, 1886)

First Lieut Philip G Wales, Asst Surgeon, granted leave of absence for two months (S O 85, A G O, April 12, 1886)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED APRIL 17 1886

Wyman, Walter, Surgeon, to represent the Service at the meeting of the American Medical Association, at St Louis, Mo April 12, 1886

Sawtelle, H W, Surgeon, detailed as chairman of Board for physical examination of officers of the Revenue Marine Service April 15, 1886

Urquhart, F M, Passed Asst Surgeon, relieved from duty at Norfolk, Va, May 1 1886, to assume charge of Cape Charles Quarantine April 16, 1886

Yemans, H W, Passed Asst Surgeon, detailed as recorder of Board for physical examination of officers of the Revenue Marine Service April 15, 1886

Heath, F C, Asst Surgeon, appointed an Asst Surgeon April 15, 1886 Assigned to duty at Chicago, Ill, April 16, 1886

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI　　Chicago, May 1, 1886　　No 18

ORIGINAL LECTURES

THE DEMAND FOR MEDICALLY-EDUCATED WOMEN

The Doctorate Address delivered at the Commencement Exercises of the Woman's Medical College of Chicago, April 6, 1886

BY D W GRAHAM, M D,

PROFESSOR OF SURGERY IN THE WOMAN S MEDICAL COLLEGE, OF CHICAGO ILL.

Two years ago, at the graduating exercises of this college, our worthy President, Dr Byford, made an address in which he entered a strong and convincing plea for the fitness and capacity of women as practitioners of medicine He also pointed out how the changing conditions of our social fabric are constantly increasing the number of women who may and ought, for their own sakes to enter the medical profession

These considerations were made from what we may call the subjective standpoint—having reference largely to the interests and qualifications of individuals as candidates, or as possible candidates, for the honors and responsibilities of medical practitioners

But there is an objective side to the question of the medical education of women—having reference to the objects and aims of medical science and its place and power as one of the factors of civilized society Accepting it, then, as proved by argument and demonstrated by experience that women may and ought to enter the domain of medicine, we may ask what is the nature and scope of that domain? Is there in it a demand for her services, and what are the promises and opportunities for work and usefulness? Medicine means very much more in these latter days than healing the sick and attending to their immediate wants It had its origin in the simple desire to relieve human suffering, and for a long time was synonymous with the "healing art" But it has grown in scope and power with the ages, and it is especially within the last few decades that medical science has taken on new duties and new life, until it stands to day for the physical and moral perfection of the human race A recent writer (Dr A L Gihon) says It embraces all that relates to the existence of man, his place in nature, his origin, development and growth, his preservation and continuance,—the prevention and cure of disease being but a part thereof

Another writer (Sir Henry Acland) says Whatever be the duty of individuals, medical art and science collectively now aim as a whole, 1st At the preservation of health 2d At the averting of disease from individuals and from nations 3d At rearing healthy progeny for the family and the State by probing the laws of inheritance, and 4th Procuring legislation effectual to these ends It claims, therefore, a voice in moral education as well as physical training, it holds a duty in relation to the diminution of vice for the sake not only of its self destroying victims, but more for the sake of the innocents whom they ignorantly slay

It is often claimed for the medical profession, both by its own members and others, that its chief glory is its charity But its greater glory is the record of its effort and its interest in the prevention of disease The brightest page of its history, and that which covers a multitude of its sins, is that in which it recognizes that the preservation of human health is a privilege and an obligation no less sacred than the restoration of health

The medical profession, as a constituent class of the community, has no more interest in preventing or mitigating the ravages of epidemics, or the spread of communicable diseases, or in analyzing and studying the conditions of our individual and associated environment to discover which promote health and which give rise to disease, than has any other class And as practicing physicians, all their efforts in this direction would be suicidal from a business point of view, and in every way detrimental to their own best interests, if they are to be measured by the standard of the average judgment of the public and the public press

Yet we find that the members of the medical profession are almost the only members of society who have an active and an abiding interest in preventive medicine They almost stand alone as contributors to the sum of knowledge which makes up sanitary science

They are always the leaders and the most zealous workers in those organizations whose objects are to teach and to preach hygiene and health to the community, or to prepare the way for and urge correct sanitary legislation It is difficult for the public to realize or to estimate rightly the value of what has been accomplished for humanity in this direction

The devastating epidemics of former generations have been suppressed, and their ravages mitigated. It is possible to eradicate such a disease as small pox [illegible] that every man, woman and [illegible] in accordance with the established [illegible]

The list of preventible disease is constantly increasing, and the means and methods of preventing them are being better understood We know better than ever before, as individuals what to do, where to go and how to act, that we may avoid disease and preserve health

But the work in this broad field has only just begun It is along this line that medical science is yet to win its best victories New facts are to be discovered, new principles established, new problems solved and new methods elaborated But in order to make these facts and discoveries available and effective, a knowledge of them must be diffused among the people and if the sanitary science of the future is to demand of the law maker such laws as will give the people the three pure requisites—pure air, pure water, and pure food—to quote a prominent sanitary writer, then that law maker must be one who knows what constitutes purity and something of the best methods of securing it

Medical science has both a duty and a privilege in relation to the defective and the helpless classes of society Together these form a considerable percentage of the population One of the marks of civilization, and, at the same time an index of the degree thereof, is the care bestowed on these unfortunate classes In barbarous tribes they are either killed outright or conveniently allowed to die, in the same way, and for the same reason that the female children are disposed of—they eat but cannot fight, and hence are an incumbrance to be got rid of The deaf and dumb, the blind, and the feeble minded have claims and rights which civilized communities recognize They have not only a right to live, but a right to a higher life than simple animal existence They have a right to be made useful—a right to that kind of treatment and training which will compensate as far as may be for their natural defects It belongs to medical science to discover the underlying physiological and pathological conditions of these defects, and to point out and apply the most effectual methods of securing the desired results It is to the honor and the credit of the medical profession that they have ever been foremost in this truly philanthropic work

Then, of what are called the helpless classes, take, for example, the incurable insane—a large and an increasing class Society does not come up to the full measure of its duty towards these unfortunates In many communities they are treated less humanely and with less consideration than if they were criminals Right here, in our own city, enough facts could be collected in twenty-four hours by anyone which, if plainly stated, would be a revelation to nine tenths of our citizens, and a cause of shame to us all And if we consider the facts as they exist, especially in relation to the pauper insane, throughout the whole country, it would be a dark page of civilization The medical profession [illegible] ble for this state of things, knowing it not They have a right, by virtue of their knowledge and their calling, to insist upon and demand better laws, better management, and better public provision for the chronic insane

Again, there are great problems concerning the criminal class which no one is so well qualified to study and solve as the medically educated man or woman It is questionable whether the prevailing methods of dealing with criminals do not cause more crime than they prevent Formerly much more than now, but even now, the spirit of our criminal laws and the method of enforcing their penalties is largely the spirit of retaliation It is a well recognized fact that some individuals are born with moral defects as others are born with physical defects The actions of a man who is born blind or is color blind are judged of differently from those of other people Should a man who has analagous congenital moral defects be judged as other men are judged? In China, when a man has committed a capital crime, a minute inquiry is first made into his physical condition, his temperament, his mental complexion, his prior acts, nor does the investigation stop at the individual—it is concerned with the most inconsiderable antecedents of the members of his family, and is even carried back to his ancestry While the Japanese laws, it is said, include the parents of the criminal in the punishment (Ribot, "Heredity")

Then there are moral defects and deformities due to the education and environments of the plastic period of youth, just as there are acquired physical deformities For instance, take the foot of the the Chinese woman, which has been arrested in its growth and distorted into an unrecognizable mass by the systematic *training* applied to it from youth up We do not expect such a person to walk with the same ease and grace and equilibrium as one whose feet have normal power and development Why, then, should we expect one whose mental and moral faculties have been similarly stunted and distorted to have the same rectitude of purpose and conduct as one whose faculties have been trained into full and normal development

When facts like these are fully developed and recognized, our management of criminals will be more discriminating, more rational, and more productive of results, and while not holding the criminal guiltless of his crime, our laws will take cognizance of the fact that there is guilt somewhere outside of the individual himself, and a corresponding responsibility

Then there are the facts and the laws of heredity, as yet almost an unknown quantity What are they and what is their import? How and to what extent may a knowledge of them be made available for the benefit of the race or the individual? What do we get by inheritance from our ancestors in physical characteristics, in intellectual traits, in moral tendencies It is an established fact, as an authority (Ribot) says, that heredity tends to transmit to the descendants the whole nature of their parents, as well every physical, mental, and moral deterioration, as every physical, mental and moral ameliora tion. But we know little about the laws of inheritance, and still less about how they may be utilized. These are great questions, and have an important bearing on all that pertains to human progress. They especially concern the physician in his efforts to prevent and control disease, and their study and solution are peculiarly within the domain of medicine.

Medical science also claims the right to speak in all matters of education—not only to advise and supervise, but to dictate. Here, if anywhere, medicine should exercise the right of eminent domain. Education and heredity are correlative factors. Together they determine whether the individual shall be good or bad—a useful or dangerous member of society. No educational theory is correct unless these facts are duly recognized.

It is only within recent years that physical training has anywhere received proper practical recognition as one of the elements of a complete education. More generally it is practically ignored, or assigned a very subordinate place in our educational institutions. More especially has this feature been neglected in the education of our girls. But there is evidence of a growing interest in this direction. An association of National character has for one of its chief objects the promotion of the physical education of women. In a recent report they realize that the physical status of American women of the educated class is painfully low, and urge measures against this dangerous deterioration of physique.

In all these directions I have pointed out, and in many others of a similar nature, there is a positive demand for the services of the medically educated woman. Here are opportunities enough and scope enough for all shades of tastes and all degrees of talent. Women are peculiarly adapted for much of this kind of work. The thousands of women of our land without occupation, with physical and mental capacity for a long life of usefulness, with noble and philanthropic aspirations, will find in these fields abundant work which will yield the most beneficent and tangible results.

A medical education is not a pre-requisite for all those who may devote themselves to these lines of work and study, but more or less knowledge of medical science and its fruits is necessary for all. But there is no better preparation for and no better stimulus to pursue such an occupation than a thorough medical education. Even as a means of individual education the study of medicine, I believe, ought to have a place for the women who expect to spend their lives in the relations of home and family exclusively. With some modifications a three years' study of medicine would be of more benefit to any woman in the way of mental discipline, combined with acquisition of useful knowledge, than a three years' course of study in most of our popular seminaries. The purely ornamental in the education of women, I think all will agree, has been overdone. A young architect once presented a specimen of his work to his senior for criticism. The criticism was the injunction: "Ornament construction instead of constructing ornament." There is much in refined society that reminds one of this criticism, so out of proportion are the simply ornamental accomplishments. But it will continue to be as heretofore, that the great majority of those who study medicine will expect to practice medicine.

We hear much in these days about the overcrowded condition of the medical profession. It is a favorite theme of discourse both in public and private and on many occasions. It may be fairly doubted, however, whether these complaints are just and in accordance with the facts when we look at the question in comparison with other professions and occupations where special and superior knowledge and training are required. They are all crowded, and probably in about the same degree. Inquiry will show no vacant place, no encouragement for the new recruit, the supply being already greater than the demand in all of them. Close and never failing competition is the rule in all trades and professions. The young woman, as the young man, looking for an occupation, who accepts the surface indications of supply and demand, will never find a place that is not preëmpted and occupied, and may just as well surrender before beginning the battle. It is often stated that the ratio of practicing physicians to the population is steadily increasing, and that there are more physicians to a given number of people in this country than any other. Both of these statements are probably correct, but they prove nothing against the claim I am now making, viz.: that the medical profession is relatively not more crowded than other lines of desirable and useful occupations. Moreover, the purely numerical standard is misleading. There are other factors that enter into the question which it is not necessary to point out here.

And while it would probably be difficult to find any community in this country where there is an apparent need of more physicians, and while it is true, as is claimed, that the standard of requirement for admission to the ranks of the profession is not as high as the present conditions of things demand, yet when all is said and everything admitted, it still remains a fact that to-day the practice of medicine in this country offers as good prospects and opportunities to the man or woman of average intellectual capacity and good training as can be found anywhere, both for earning a good living and for a life of the highest usefulness. There is room and even demand for the thoroughly earnest, well educated medical woman in almost all parts of our country. But it is outside of our own country that the American medical woman will find the great opportunities and an unlimited demand for her services as a practitioner of medicine.

The oriental countries contain about 800 millions of people—fully one half of the population of the globe. The low estate of the women of these countries has been portrayed many times. The story of their physical, mental and moral condition sounds to us like a fable. A writer says:[1] "The women of America do not generally understand how degraded their oriental sisters are, and even travellers who have the very best opportunities for observation cannot appreciate their real condition. If we except

---

[1] Houghton. Women of the Orient.

Japan, it may be truthfully said that throughout the Orient a girl is regarded by the entire household both as an intrusion and a calamity, and the prevailing estimate of the female sex is most degrading and brutish. In Mohammedan countries at least, a man makes a profound apology whenever he deems it necessary to speak to another man of either a dog, a hog, a donkey or a woman. The Japanese, although more liberal in their treatment of woman than other Eastern nations, habitually look upon her as a portion of creation whose only use is to perpetuate her species and minister to man's pleasure and comfort. Practically she is recognized only as a slave, and whether in the palace of a prince or the hut of a beggar she is systematically condemned to moral and physical degradation, In China, also, the idea that woman exists only for the convenience of man, and scarcely shares the same nature, is thoroughly fixed in the national mind, while with the Hindoos, both by sacred law and custom, she is consigned to a degradation which is without a parallel in the history of our race. In every particular the Eastern idea of woman is debasing and unworthy.

While this state of things is well known in a general way by all Christendom, yet I think there are very few who actually realize that this is not an exaggerated picture of the condition of more than half the women of the whole world. The science of medicine as we know it has no existence among the oriental people. They have no knowledge of the structure or functions of the human body nor of the true nature of disease. "Charms, superstitious rites, barbarous treatment, vile medicine and foolish religious ceremonies are the unavoidable accessories of the sick room, and frequently induce a fatal termination which nature, if left to herself, would have averted." In all [illegible]cept the few localities where European civilization [illegible]s penetrated they are practically without medical treatment. And the women are deprived of even these slight advantages owing to the seclusion which the inflexible religious and social customs impose. So that educated female physicians can find in this vast region a special field for their services, where there is no competition and the demand is greater than the supply. Experience shows that the direct benefits to these women of rational medical treatment are incalculable. But it is as pioneers and forerunners of a Christian civilization that these medical women are to carry the greatest blessings to their degraded sisters. A great responsibility is upon the women of America. The opportunities and the possibilities are infinite.

Speaking now more directly to the graduating class, I extend to you in the name of the Faculty a cordial welcome to the ranks of the medical profession. You have passed the arbitrary line which technically separates the student from the physician. You will realize that in one sense this line is only an imaginary one, such as astronomers use for the purposes of reckoning. But still to all who pass that line, as you do to day, there come new privileges and new duties. If you would enjoy the one you must fulfil the other. If you would catch the spirit of duty you must align yourself with the true workers and representatives of the profession. General Sherman in his memoirs makes the observation that the rear of an army in action is not the place from which to judge of success at the front. On approaching from the rear one would conclude that defeat and disaster had overtaken the whole army, while at the front there would be nothing but victory.

So it is in the medical profession. The truly representative members, those who work and win the victories for medical science and humanity, are like the stalwarts in the front of the army who in their strength and prowess are steadily and surely advancing and rejoicing in their triumphs, and also, like the fighting part of the army, they are mostly out of sight of the public eye and out of hearing of the public ear. But in the rear are the laggards, the croakers, the cowards, the spoil seekers and the prophets of evil. These seek and obtain the public ear, and hence it is that the public so often fail to discriminate between, for instance, the spoil seekers or the croakers and the honest and faithful workers. Hence it is, also, that so often in our current literature and the public press the medical character is a weakling or a medical monstrosity, and that the spirit and status of the rear of the medical army are reflected rather than those of the front.

The most comprehensive advice I can give you to day as new recruits is to face to the front and place yourself immediately in the ranks side by side with the faithful veterans. Thus you will never be troubled about individual duty, and need give yourselves no concern about the rewards and honors, for these will come spontaneously.

Accepting the badge of admission to the medical profession as you do to day intrusts you with a share of responsibility for the honor and good name of the profession, and implies a tacit acceptance by you of this trust. The temptations for the physician to violate this trust, to turn aside into devious ways for selfish ends, to subordinate the professional to the trade spirit, and to make commerce of the sacred relation of physician and patient, are many, and not a few find them irresistible. The condition and fate of such are somewhat as when centuries ago, in one of the Netherland provinces, a free woman who intermarried with a slave condemned herself and offspring to perpetual bondage and disgrace. But she had an alternative. She was girt about with a sword and a distaff. Choosing the one she was to strike her husband dead, choosing the other she adopted the symbol of slavery and became a chattel for life.

OVARIAN EPILEPSY, FOUR CASES

A Clinical Lecture delivered in the Gynecological Clinic of the Medical College of Ohio,

BY C. D. PALMER, M.D.,
PROFESSOR OF GYNECOLOGY IN THE COLLEGE.

The first case to day, gentlemen, is that of Mrs. Mary C., aged 29 years. She has been married nine years, and has had two children, the youngest being now four years old. The patient is a bleacher in a laundry, in which she has worked for eighteen months

Her occupation requires her to remain standing while at work

She has been having fainting spells once a day, more severe at the menstrual epochs These fainting spells came on after she began work in her present position The menstrual flow occurs once a month, and lasts two days She has backache and is constipated The left ovary is prolapsed, and there is slight retro version and congestion of the uterus

The diagnosis in this case is epilepsy, *petit mal*, occurring more frequently at the menstrual periods, and aggravated by the patient's occupation She has been under treatment for three months, on pil podophyllin for the constipated condition, and bromide of potassium for the epilepsy Under this treatment there has been marked improvement

The second case is that of Mrs A K , a widow, aged 43, who has had one child Her menstrual flow is regular, lasting four or five days It is not accompanied by pain, and is rather scant There is a condition of slight leucorrhœa, and she complains of backache and constipation She has had periodical attacks of unconsciousness and convulsions at the menstrual period for eight years, especially during the past two years Occasionally, say each third time, the attacks intermit, but sometimes she has attacks in the intervals

Physical examination shows that the uterus is low, slightly retroverted, and congested There is no laceration of the cervix

The malady was diagnosticated as menstrual epilepsy, and on treatment with bromide of potassium, three times a day, and Hunyadi Janos water or rhubarb for the condition of the bowels, she has improved in general health

The third case is that of Miss A , 15 years of age, who was admitted to the Hospital on September 1, 1885 She has had epileptic attacks for the past fifteen months She has not menstruated, but it is probable that ovulation has taken place The attacks come on regularly once every month You can see that she is small and but illy developed Like the other patients shown you to day, she is very constipated

On the diagnosis of ovarian epilepsy she will be put on bromide of potassium, gr xv three times a day, and pil podophyllin It is necessary that she have good food, exercise, moral and mental training, and vegetable and chalybeate tonics We give bromide of potassium to this class of patients because it has a sedative influence on the nervous system, and on the sexual organs at the menstrual period This patient should have physical employment, not severe, and should get out into the fresh air every day We may say that the diagnosis in this case is favorable for cure It is probable that the uterus of this patient is as ill developed as her body, and her menses will probably come on later It is one of the cases in which mothers resort to hip baths, hellebore, savin, rue, etc , a very pernicious method of treatment We may as well try to get a girl five or six years old to menstruate The salient features of the case are that the girl has had attacks every four weeks, probably at the time of ovulation Why does she have epilepsy? Probably she has no organic disease of the nervous system, and if brought to view probably no structural changes could be found There is probably some defect in the hemispheres, she has a very mobile nervous system

When examined on December 7, three months after admission, she had had no attack for three months Previous to this the last two attacks were two months apart, but occurred at the time of her menses On December 25 she began to celebrate Christmas in the usual manner, with candy, nuts, etc , and contracted a cold On the next day she had an attack, the first for sixteen weeks She has been under treatment now for five months and a half, on the bromide of potassium, and has had no attack since the one at Christmas This treatment will be continued for a year or two, even if there be no recurrence of the attacks, simply as a preventive measure As shown by her experience at Christmas, errors in diet may render futile all the good accomplished by months of treatment

The fourth case is that of Miss L , of American parentage, unmarried, 27 years old She entered the Clinic in the spring of 1883, and stated that for nine years previously, that is, since the first appearance of the menses, she has suffered from epileptiform attacks They usually occurred in the day time, seldom at night, and were accompanied by loss of consciousness Prodromata were always present, in the form of headache, general nervousness, and pain in the left ovarian region and the left arm, all aggravated by errors in diet After their first appearance the menses ceased, but the attacks occurred monthly, and she was never regular in menstruating until the year before she was admitted to the Clinic For a short time, too, she had intermenstrual attacks

On admission her general health was fairly good, the menses regular, of normal quantity, and lasting four days, though there was some dysmenorrhœa Physical examination showed nothing markedly abnormal, except tenderness in the posterior lip and the left ovarian region

On the diagnosis of *petit mal* of ovarian origin, she was put on regulated diet, with Fowler's solution for the stomach trouble, and a teaspoonful three times a day of a solution of bromide of potassium (ʒss—water ℥ij) Tincture of iodine was applied locally in the ovarian region, and later the emplastrum cantharidis over the ovaries a few days before the time for menstruation This treatment was continued for a considerable length of time with very marked improvement Up to April 19, 1885, she had had four attacks, on April 25 she had another, and three more by May 24 On May 31, 1884, it was noted that she had had only two attacks since Christmas She attended the Clinic irregularly, but bought the bromide by the pound and took it regularly at home In the autumn of 1885 she began to take gr xxx dissolved in half a glass of water three times a day

In this case improvement followed almost immediately on the commencement of treatment, that is, within six or seven weeks Treatment was then suspended and the attacks recurred It was renewed, and the attacks became much less severe, and diminished to two in a month It does not at all follow that there is much local pelvic disease to produce this form of epilepsy In some cases the attacks occur only at certain menstrual periods at first, and after a few years they come on more frequently and with more severity, and between the menstrual periods This often occurs in patients who are irregular in menstruating It is difficult to say just what pathological lesions are present in these cases Many of these cases occur in persons who are illy developed as regards their nervous systems They need improved hygienic surroundings, good food, and evenness of life They should not be idle, but the occupation should not be arduous If young, great attention should be given to proper schooling of the mind, so that it may be better developed, when it is less liable to disturbances Mental shock, moral disturbances, indigestion, worms, ovulation, etc , may disturb the nervous system sufficiently to cause these attacks It is probable that this patient masturbates Patients who have migraine often escape epilepsy, and *vice versa* If you can carry the patient over one attack it is a great gain for the nervous system, as every attack weakens, and increases the liability to others Finally, for these cases the ovaries may be removed, but this should be done only as a *dernier ressort*

ORIGINAL ARTICLES

BORACINE

BY W THORNTON PARKER, M D ,

OF NEWPORT R I

The earliest of medical writers knew of the antiseptic qualities of boric acid, and its healing and purifying properties have been recognized for centuries It has been recommended for use in solution, in powder and in ointment for the treatment of wounds, burns, and sores of all kinds, and yet when the dangerous properties of carbolic acid, iodoform, and the bichloride solution had been proved over and over again, and no satisfactory substitute discovered, borax still remained in great obscurity Although its value was known so well, yet it was not considered worthy of rank as an antiseptic, and few believed that it possessed germicide properties

The writer first became interested in the subject of antiseptics while attending the surgical clinics of Prof Lister, in Edinburgh, in 1870, and subsequently in the Continental hospitals opportunities were afforded for witnessing the effects of carbolic acid, salicylic acid, iodoform, bichloride solution, etc In the hospitals of Bonn, Leipzig, Vienna, Freiburg, Tubingen, Munich, Heidelberg, Wurzburg, Paris, London and Dublin, I watched the development of the antiseptic method for surgery which Lister had so brilliantly brought forward Each hospital had its individual procedure for the protection of wounds The Charing Cross Hospital, London, in 1882, had developed the value of boric acid in combination with glycerine and since that time to the present the writer has found no preparation more satisfactory for antiseptic purposes than that now manufactured by Theodore Metcalf & Co , of Boston, viz boracine

Boracine is composed of boric acid, glycerine, menthyl salicylate, menthol, thymol and eucalyptol For surgical purposes it is best prescribed in solution, one part of boracine to twenty or thirty of water It can be used, however, from 10 per cent to 50 per cent in strength as may be indicated Under its use wounds of all kinds heal as rapidly and as satisfactorily as under carbolic acid dressings, but with boracine there is no danger from poisoning, and the wound and the surrounding tissues are not inflamed or injured It is, in fact, entirely innocuous when applied to a wounded surface For minor surgery it is useful as an ointment combined with cosmoline, vaseline, or lanolin, the new basis for ointments

℞	Boracine	℥iss
	Adips	℥ij
	Lanolin	℥iv

M

Boracine is useful as an application in chronic otorrhœa, in diseases of the nasal passages, chronic catarrh, etc , and for diseases of the rectum I have found it very useful as an application for chronic cases of pruritus ani, as well as in general cases of prurigo In such cases it will often afford perfect relief where other remedies have failed For the treatment of ulcers of the leg nothing could be more satisfactory It should be used as a thick paste completely covering the sore I direct the patient to carefully and thoroughly wash the ulcer and the surrounding skin with the best Castile soap, then apply the pure boracine, and then to bandage the leg with the solid rubber bandage

For injection in cystitis it is to be highly recommended For use in diseases of the eye it is excellent For the treatment of diphtheria in 25 per cent solution for the steam atomizer I have found it excellent, and altogether preferable to any other preparation known to me For an injection in the puerperal state nothing could be better than a 25 per cent solution of boracine This can be used with safety, while other preparations like carbolic acid have often proved injurious and even dangerous In gynecology it is especially useful in solution as an injection for leucorrhœa, vaginitis, etc It is an excellent application for ulcerated cervix, spread thickly on the diseased surface It can also be spread on absorbent cotton and introduced and applied in that manner After considerable experience with the various preparations used for local treatment in these disorders, I find none yielding such satisfactory results as the boracine The cleanliness and the gentleness of this remedy, and the steady improvement resulting from its use, will be very satisfactory to both patient and physician

Messrs Metcalf & Co have, at my suggestion, made vaginal and rectal suppositories of boracine in combination with gelatin, and pencils of the same for intra uterine and other uses These contain 25 per cent of boracine The suppositories are of three sizes—Nos 1, 2, 3 No 1, the smaller, is a useful suppository in various rectal disorders, particularly in piles, and I have also used them with great success in the treatment of "thread worms" No 2 is of medium size, and can be used either for the rectum or for the vagina Where a larger amount of boracine is required, in cases of chronic leucorrhœa, vaginitis, or uterine disease, No 3 suppository is indicated The larger suppositories should not be used more than three nights in succession, and experience has taught me that the best results are obtained usually by using them every other night

In chronic eczema of the scalp I have found the action of boracine remarkably good Cases which have refused to improve under ordinary treatment respond quickly to the use of boracine ointment I direct the head to be shaved and carefully washed with Castile soap, and boracine ointment, 15 to 20 per cent, applied The washing with Castile soap and careful drying is to be attended to night and morning, and then the ointment is applied with the most satisfactory results In many obstinate diseases of the skin boracine will be found very valuable

So many new antiseptics have come into notice of late that boracine will be viewed with some doubt, but the writer feels confident that the experience he has had with the new antiseptic justifies him in praising its merits and in cordially recommending it for use by the medical profession To say the least, we have no antiseptic better at hand at present, and, in the writer's opinion, nothing which can equal it in general usefulness

Newport, R I, April, 1886

MEDICAL PROGRESS.

THE ANTISEPTIC TREATMENT OF WOUNDS —At the close of an interesting article on this subject SURGEON-MAJOR W GRAY calls attention to the fact that in a long series of cases the latter half were much more successful and this greater success appears to coincide substantially with the disuse of the waterproof covering, and with the adoption of dryer and thicker absorbent dressing Accurate adaptation of the flaps I regard as of great importance I now always mark them out with a scalpel, in order to insure evenly cut edges, and when the skin has contracted they are completed by transfixion in the usual way My experience has taught me, too, that antiseptic applications direct to the wound are in many cases unnecessary I allude especially to those cases where the tissues are perfectly healthy Still they do no harm, and, by way of making "assurance doubly sure," may be employed in every instance All I mean to convey, however, is that we can in a certain class of cases obtain as good results without as with them, provided we attend carefully to other precautions I never under any circumstances use the spray Moisture in any shape or form I look upon as one of the most fertile sources of failure Our whole efforts should be directed to preserve both the wound and the dressing in the driest condition possible The essentials, then, of my present procedure are cleanliness, infrequent dry dressing, free drainage, accurate adaptation of flaps, and rest Under the last mentioned, pressure by means of bandages may be included To prevent putrefaction of bloody and serous discharge I prefer to have the dressing medicated with some unirritating stable material Of all I have tried, boracic acid or iodoform is decidedly the best The latter is more expensive, however, hence I have found boric cotton more convenient to use In order to press the flaps close together, and thus lessen or avoid exudation, I draw the bandage as tight as possible, the thick elastic pad of cotton and oakum underneath will always prevent it being drawn too tight So effectually does this answer its purpose that I have on more than one occasion found the original dressing, on first exposing the stump, almost perfectly dry and clean Oakum, besides being more or less antiseptic, keeps the cotton together, and enables us to save the use of the latter to a certain extent as well Wood-wool, although a most excellent absorbent dressing in suitable cases, is somewhat unmanageable in amputations Made into pads, it does not fit closely enough, and employed loose, it is difficult to apply, and is inclined to get lumpy or become displaced To ensure complete rest of the parts while the healing process goes on, the limb, if it be a lower one, is fixed in a heavy box splint and well packed round with cotton Should the upper limb be operated on, the stump is securely fastened to the side of the trunk, with plenty of cotton interposed and placed around The cotton packing, as well as the thick dry dressing, preserves the normal heat of the parts, a matter which I believe is essential to rapid and perfect union Lowering of the temperature by wet dressing, exposure, or cold applications tends, I am convinced, to delay or prevent union by first intention During the progress of the case the thermometer is used morning and evening, if the temperature remains normal, or does not rise beyond 99 5° F occasionally, all is going on well, and the original dressing need not be disturbed sooner than the ninth or tenth day When removed the flaps will be found firmly united The drainage tube may now be withdrawn, its track gently syringed out with carbolic or sublimate lotion, a little iodoform introduced, and the stump redressed with oiled lint or with boric cotton, taking care to sprinkle either with iodoform Some of the unsoiled boric cotton from the original dressing will do quite well enough A pad of oakum and a bandage complete the second dressing This may remain on for four or five days longer, and when removed the track of the drainage-tube will have closed The sutures may now be taken out, the stump being practically healed Should the temperature, during the course of the second or third day, rise to 100° or beyond, and remain so, the antiseptic dressing has probably failed and must be removed, the stump being treated in the ordinary way, or, better still, with wood-wool and iodoform Before doing this I always administer quinine, as the fever may be of malarial origin, and not traumatic In more than one instance this has proved to be the case The precaution I note here is, however, scarcely necessary, except in a climate where malaria prevails

This paper has run on to such a length that I can hardly do more than to mention that the treatment, on the same principles, of other surgical and of accidental wounds has met with nearly equal success. In the former class of cases, especially where there is much areolar tissue—say, the axilla after removal of a large tumor—the surface, after bleeding has quite ceased, is well rubbed over with iodoform, closed, and dressed with boric cotton and oakum, as described above, and the result is all that can be desired. In the operation for the radical cure of hernia, or after herniotomy, this treatment of the wound has been attended with remarkable success, union by first intention being the rule. Accidental lacerated and incised wounds are first thoroughly cleansed with carbolic lotion, then washed with sublimate lotion, iodoform is rubbed in, and the dry dressing, either boric cotton or wood wool, applied. Sutures are not used, no matter how widely the wound may gape. The first dressing may be left on for twelve or fifteen days, or even longer, provided the temperature keeps down. In compound fractures the preliminary cleansing must be very carefully done before the sublimate lotion and iodoform are applied. The latter lotion should be forcibly injected with a syringe into every crevice of the wound. I find that for this purpose a Higginson's enema syringe is the most convenient, a continuous stream of lotion may be easily sent by it up the sheath of a tendon or, in case of amputations, between the flaps after the sutures have been inserted. The dry dressing in compound fractures requires to be very thick and to be bound on firmly, the limb is afterwards fixed on the appropriate splint. Small or clean cut wounds under this method of treatment will be found closed on removal of the dressing, and larger ones with a healthy granulating surface.—*Lancet*, April 3, 1886.

TREATMENT OF HÆMOPTYSIS.—MR. H. T. BACHELOR, of Queenstown, Cape Colony, says: In considering the treatment of hæmoptysis, one naturally looks for the cause, but I think in the cause ought to be included the liability to bleed in the individual, that is, the constitutional liability, as well as the reason why he bleeds from the lungs. Bleeding is by no means an unfamiliar accident to which mankind is liable, but if we could select our bleeding ground, it would not be the lungs. But bleeding in itself ought to be regarded chiefly as an expression of a diathesis, whether it comes from the nose, lungs, stomach, rectum, kidneys, or uterus, an expression of a diathesis aggravated probably by some error in diet or other temporary cause. I am not now referring to bleeding from ulcerated lungs or stomachs, etc., where a vessel is opened, and the treatment would best be met by a ligature if we could only apply it, but to the hæmorrhage which occurs suddenly in a person in good health, and from an apparently healthy mucous membrane. The diathesis which underlies the tendency to bleed has, by Mr. Jonathan Hutchinson, been shown to be the gouty. Fothergill's definition of gout is: "Gout is hepatic reversion—the formation of primitive urine products by a mammalian liver." If these two statements be accepted as correct, it follows that bleeding is due to functional derangement of the liver, or to put it differently, dissolution from its normal and healthy development or imperfect evolution.

Now, I firmly believe that the tendency to bleed occurs with the gouty diathesis, and that the excess of uric acid in the blood, and the locality of the bleeding, is due to individual peculiarities. Most people in youth inheriting this diathesis bleed from the nose, later in life, from the rectum or uterus, some of them from the lungs. Now, those who do so from the lungs need not necessarily descend from phthisical ancestors, a badly formed thorax, interfering with due expansion of the lungs, may be a sufficient cause. But, apart from such considerations, and to come to treatment, I think such people are best cared for by being dieted. Alcohol and meat are pernicious. But, supposing such a person has an hæmoptysis, saline purgatives, diuretics, and diaphoretics will best meet the case. But as these people are always very nervous, it is necessary to administer a nervine tonic. Opium may also be given, cannabis Indica is almost better. I quite agree with Dr. Samuel West in his remarks on profuse hæmoptysis published in the *British Medical Journal* of January 16, 1886.

It is to my mind often amusing to read the experience of some as to the value of a particular remedy in the treatment of bleeding. It seems to be forgotten that bleeding naturally ceases when the vascular system is adequately reduced. This is nature's method of saving the patient, and we cannot do better than imitate her. Bleeding, therefore, or dry cupping, or depressants, ought to be effectual aids as applied by us. Certainly, astringents imbibed cannot hold out much prospect of doing good. And as iron and opium also do not agree with these gouty people if continuously used, much care ought to be exercised in prescribing them.

Iron and digitalis I believe to be a particularly obnoxious combination. A man has an hæmoptysis, we will say, and he is given such a mixture. It is supposed that it stops the bleeding, whereas I believe the bleeding has stopped naturally. He continues with the mixture to prevent a recurrence, with frequently unhappy results. The iron impedes still more the already imperfectly acting liver, and the digitalis increases the tension in the already wounded vessel. It follows, then, that a recurrence may be naturally expected. Then, as to the bleeding from the lungs, the danger does not lie in the amount lost, but in the irritative changes it induces in the lung substance. Now, it is believed that the cough must be allayed (and to do this, opium is usually given) in order to prevent more bleeding. If it be accepted as true that the bleeding naturally tends to cease, I think we ought not to do anything to interfere with the expectoration of the effused blood. I am certainly of opinion that, if it be necessary to give opium continuously, in order to stop more bleeding, although the patient may not die of hæmoptysis, he assuredly will eventually of lung inflammation. To give opium is assuredly a barbarous way of treating lung affections. In order to explain an apparent discrepancy with a former statement, when I said that opium might be given to allay the vascular and nervous tumult, I wish to say that a single dose may be given for this object, but the continuous administration is hurtful. As I said before, I believe cannabis Indica the better of the two for this purpose. —*British Medical Journal*, April 10, 1886.

PYRIDINE IN ASTHMA.—PROFESSOR SEE, in a lengthy article (*Bull. Gen. de Therap.*, Oct. 1885) upon the treatment of the various forms of asthma, makes the following remarks upon pyridine in the treatment of that disease. When the iodides can not be taken, or when they give rise to grave symptoms of iodism, the patient usually resorts to some empirical remedy in the form of an inhalation. An analysis of this usually shows it to contain pyridine as the active ingredient. Pyridine is the product of dry distillation of pit-coal, and is a liquid, colorless, very volatile, and has a strong and penetrating odor. It is miscible with water in all proportions, forming with the mineral acids soluble but unstable bases. It diminishes the reflex functions of the medulla and respiratory center.

The best way of administering it is to put ʒj to ʒj mxv in a saucer, and place the saucer in the center of a small room, the patient to sit in one corner of the room, so that, as he breathes, he inhales an air mingled with pyridine. The *seance* should last from twenty to thirty minutes and be repeated three times a day. The absorption is rapid, for it soon appears in the urine. Great relief is experienced in a short time. Occasionally, toward the end of the sitting, the patients have an invincible tendency to go to sleep. In some cases the attacks of asthma had entirely disappeared; in others they returned in eight or ten days. The following is an analysis of Professor See's experience with the drug. Of fourteen patients (three females and eleven males, from 30 to 60 years of age), three suffered from pure neurotic asthma, and were cured; three, with catarrhal and emphysematous asthma, received amelioration; in one old case of nervous asthma there was benefit, but the drug had to be suspended on account of the vertigo and nausea it caused; in five cases of cardiac asthma the amelioration was pronounced without any ill effects upon the heart. In a subsequent note Professor Sée adds: During the past three months I have used pyridine inhalations in about fifty cases, in most of which the patients not only received relief during their attacks, but were cured without the intervention of potassium iodide. I am therefore, constrained to consider pyridine no longer as a simple palliative, like the fumes of niter, but as a true curative remedy, and one entirely free from all inconveniences.

Dr. Lublinski's communication (*Centbl. fur die Ges. Ther.*, Heft xii, 1885), embodying his experience with pyridine in asthma, is of considerable interest and value taken in connection with the foregoing abstract of Professor Sée's paper. He does not undervalue the importance of treating the nasal passages, and the administration of potassium iodide, in most cases of asthma. But a certain number of patients remain that are not benefited by the former, and in whom the smallest dose of potassium iodide produces symptoms of iodism. The latter patients he had been in the habit of treating variously until he had read Professor Sée's article on the treatment of such cases with pyridine. Since then he has been employing, at his Poliklinik, pyridine inhalations according to Professor Sée's instructions. Nearly all the patients gave expression to a feeling of relief at the commencement of the inhalation, and said they felt the breathing grow easier and the chest expand more freely. Objectively, Dr. Lublinski could confirm these statements in emphysematous patients by noting that the respiration diminished in frequency, and the loud whistling ronchi ceased. There was no apparent effect on the heart, but the pulse not infrequently showed a diminution in the number of its beats, while its rhythm and quality remained unchanged. The invincible tendency to sleep, which Professor Sée mentioned as occurring only occasionally, supervened in most of Dr. Lublinski's patients. The patients all said they felt improved, and that they had passed better nights. They came to the Poliklinik twice daily to be treated, some of them quite a distance, which was strong evidence that their statements were grounded on truth. Still says Dr. Lublinski, it must not be denied that in a few cases symptoms manifested themselves that appeared dangerous. In one case, trembling of the limbs and nausea oocurred; in another, violent vomiting, with dizziness and headache; and another patient felt as if paralyzed. All these symptoms disappeared, however, after a time without leaving any further ill-effects on the patient's health. Still, they were not infrequent, and required careful attention. In decrepit individuals with emphysematous asthma, a weak heart, and poor circulation, and in those with valvular affections with symptoms of congestion, those symptoms are particularly prone to develop. An analysis of the cases treated by Dr. Lublinski shows them to have been two cases of emphysematous asthma complicated with phthisis, two of neurotic asthma, four of bronchial, and five of cardiac asthma. Of these twenty one patients that had been treated with the pyridine for a time (8–14–21 days), only the two with neurotic asthma could be said to be cured. Of the remaining patients, ten experienced marked improve- five received some relief and were at least able to pass the night in bed, and four were not appreciably benefited.

Dr. Lublinski employed pyridine in heart affections, independent of asthma, and the results, briefly stated, are that it gave marked relief in the feeling of oppression accompanying that disease. To sum up, the author would say that pyridine is not a specific in the various forms of asthma; that it finds its best application in cases of neurotic asthma, in which potassium iodide, nitro glycerin, and amyl nitrite are contra indicated, but even in these we must wait for further experience; that in the various other forms of asthma pyridine is a palliative, which must not be used indiscriminately; the cases require to be selected. —*New York Medical Journal*, April 17, 1886.

THE INFLUENCE OF STARVATION ON THE NERVE CENTRES.—DR. P. J. ROSENBACH, house physician to Professor J P Mierzejewski's clinic, has studied (*Vestnik Klin ee Sudeb Psikhiatri* , vol 1, part 2, and *St Petersburg Inaugural Dissertation*, 1883) experimentally, in dogs and rabbits—1, the microscopic changes occurring in the central nervous system in animals starved to death, 2, the influence of starvation on the excitability of the brain, and 3, the clinical symptoms resulting from the action of starvation on the nervous system

1 *Morbid Anatomy* —*a Spinal Cord* — The changes wrought by starvation were very marked and constant, though they were almost exclusively limited to the nerve-cells, the cells of the anterior horns presenting the most intense alterations The latter consisted in "opaque swelling" of the protoplasm, wax-like degeneration with loss of the processes, granular or hyaline degeneration or disappearance of the nucleus, sieve like vacuolization, and complete disintegration of the cell with fatty degeneration of detritus The longer the animal has lived under starvation, the greater are the alterations found, the lesser is the number of normal multipolar ganglionic elements met at an individual section All other conditions being equal, the most intense changes are observed in the neighborhood of the blood-vessels [That is, the morbid process in starvation follows the general law of spreading of diffuse degenerative processes in the spinal cord, as established by Dr James Ross, and as subsequently supported by N Popoff, Tchij, etc] The cells of the posterior horns undergo the degeneration in a far slighter degree than those of the anterior The neuroglia and nerve fibres show only some opacity and swelling [Like Dr Mankovsky (see the *London Medical Record*, Feb , 1884, p 73), Dr Rosenbach never saw anytning like "homogenous degeneration" of the interstitial tissue of the gray matter, as described by Dr N Popoff, neither did he see Popoff's "pigment degeneration" of the ganglionic cells] The vascular changes are the most marked in sections presenting the most intense degeneration of the nerve cells, and consist in intravascular accumulation of red and white blood-corpuscles in capillaries and veins, in hæmorrhage *per diapedesin*, and, relatively rarely, in "plasmatic" or "colloid exudation" (Lockhart Clarke's "granular" or "fluid disintegration")

b Brain —In all parts of the cerebral cortex (in the psychomotor area, as well as in the occipital, frontal and parietal lobes) there are present the same degenerative changes, but they are considerably less pronounced than in the spinal cord The ganglionic elements in the optic thalami, corpora quadrigemina, etc , present only slight opaque swelling The white substance everywhere is free from alterations The circumvascular spaces show marked dilatation, but without any accumulation of leucocytes

c Cerebellum —The degenerative process is localized in Purkinje's ganglia, shrinking of their protoplasm, vacuolization, and disappearance of the nucleus, being the changes prevalent

d Intervertebral and Sympathetic Ganglia —The same degenerative changes, except hæmorrhage and colloid metamorphosis, are found The lesions of the nerve cells in the intervertebral ganglia are so intense, as to create a distinct and characteristic macroscopic appearance The connective tissue of the structures is somewhat rarefied The sympathetic (cervical) ganglia present the same alterations, but in a slighter degree

Discussing the changes above described, the author points out that the same lesions are found in myelitis of traumatic and idiopathic (Leyden, Erb, Hayem, Vulpian) as well as toxic origin [as proved by the following experimental researches carried out under the guidance of Prof J P Mierzejewski Danillo's "On the Morbid Anatomy of the Spinal Cord in Phosphorus Poisoning," 1881, N Popoff's "On Acute Myelitis from Lead, Arsenic, and Mercury," 1882 (see the *London Medical Record*, December 1883, p 515), and Tchij's "On Alterations in the Spinal Cord in Poisoning by Morphia, Atropia, Nitrate of Silver, and Bromide of Potassium," in the *Meditz Pribav, k Morsk Sborn* , May and June 1883 —*Rep*] But, at the same time, there are present important distinctions between starvation on one side, and myelitis and poisoning on the other In starvation, there is absence of all inflammatory phenomena, such as infiltration of the tissues by leucocytes, formation of "granular cells," thickening of the vascular coats, etc , which are always found in myelitis and poisoning The degeneration and destruction in starvation are nothing but results of a defective nutrition, in consequence of arrested supply of nutritive material The localization of the degenerative process is determined by the nerve cells possessing a comparatively weaker power of resisting any disturbances of the general nutrition

2 *Excitability of the Brain* —Having carried out (conjointly with Professor V M Bekhtereff) a series of experiments on stimulation of the psycho motor centres in dogs, the author found that, to obtain the minimal motor effects, the strength of electric current must be greater than in the normal (non-starved) animal In other words, the electrical excitability of the brain is lowered under the influence of starvation

3 *Nervous Symptoms in Starvation* —Rabbits did not present any nervous symptoms at all As to dogs, there were observed some individual differences Thus "stray" or "street dogs" (or "no man's dogs"), accustomed to vicissitudes of life and half starving generally, in the beginning bear a complete hunger-diet good humoredly, and even preserve a cheerful disposition for a pretty long while Meanwhile the animals accustomed to good care and regular feeding at first manifest considerable restlessness, whine, and howl But afterwards all starved animals become quieter and listless, lie motionless, and do not even touch any food put before them Dr Rosenbach did not see anything like delirium or hallucinations of inanition, except in one case where the animal gnawed off a part of its paw in the last day of its life —*London Medical Record*, January 15, 1886

PICHI (FABIANA IMBRICATA) IN CYSTITIS —DR HAL C WYMAN, of Detroit, gives a record of five cases in which this drug was used in cystitis

The first case in which I used the fl ext pichi was early in January, when my attention was called to the drug by Dr J E Clerk, the chemist of this city A Mr G, aged 23 years, who contracted gonorrhœa a year or more ago, and who had stricture of the urethra, which I found necessary to divulse a few days before Christmas A copious hæmorrhage from the deep urethra followed the operation, and a few days later severe vesical tenesmus disturbed the patient so that sleep and appetite vanished All the symptoms of typical cystitis speedily developed Morphine, belladonna, hyoscyamus, and alkalies were used internally and by the rectum for a week without materially modifying the symptoms So irritable did the bladder become that it would not retain urine longer than five to fifteen minutes I now began the use of the fluid extract of pichi in 15-drop doses in water once in three hours The tenesmus and pain began to decline after twenty-four hours, the mucus and pus also to diminish in quantity, and at the end of the week the bladder would retain its contents three hours without causing the patient any inconvenience

This patient has now March 8, fully recovered I think the cystitis was of traumatic origin, the harsh manipulation of the vesical mucous membrane with the divulsing apparatus Thompson's instrument was the one used

Mr H, aged 71 years, had been getting up nights so pass urine for the last five years Ten months ago he found he could not empty his bladder, and was compelled to call a surgeon to use the catheter A severe chill followed, and he was very sick for two months, having the catheter used every day He learned to use it himself, and continued to use it daily until last February, when he had another chill, and his left testicle swelled and inflamed He was too sick to use the instrument I was summoned by his medical attendant in consultation, and opened a large abscess of the left testicle, and advised against further use of the catheter His prostate was greatly enlarged Opium and camphor suppositories relaxed the spasm of the catheter His urine was heavily loaded with urates Mucus, blood, and pus were present in abundance He was put on fluid ext pichi, and continued its use for three weeks He has made an excellent recovery

I might enumerate numbers of cases of lumbago and sciatica in the course of which urates were precipitated from the urine in large quantities, and which recovered while the patient was taking the pichi Combined with a potassium salt I have found it to act more quickly than any other remedy in bringing about a solution of the urates and relieving the rheumatic neuralgia so frequently associated with that unstable condition known as lithuria, phosphatism, etc A formula I have often used is—

℞	Fl ext pichi	℥i
	Potass nitrate	ʒi
	Simple elixir	℥iii
	M	

S —Teaspoonful once in two hours

—*Therapeutic Gazette*, April 15, 1886

PARALYSIS AFTER INJECTION OF IODO GLYCERINE FOR SPINA BIFIDA —At the meeting of the Wolverhampton and District Medical Society, on March 4, DR LYCETT exhibited a girl, aged 6, who, at birth was the subject of spina bifida over the upper part of the sacrum, forming a tense sessile tumor, of the size of an orange, having an ulcerated surface of the area of a crown piece, which, on healing, formed a thin membranous covering to that portion of the sac As it became thinner through expansion, it was tapped when she was six weeks old An ounce and a half of fluid was drawn off, and forty minims of iodo glycerine injected with a negative result The sac refilled about a week afterwards, about an ounce of fluid was withdrawn, and the injection increased to a drachm and a half, causing the sac, in a few days, to become obliterated Co incidentally with the shrinking, however, came loss of sensory and motor power in the legs, with incontinence of fæces and urine, the paraplegia, which persisted, being completely below, and incomplete above the knees Hydrocephalus also commenced immediately after the operation, and gradually increased until the third year, when the fontanelles closed without developing any nerve phenomena, or impairing the mental power The horizontal circumference of the head now measured twenty-two inches In the report of the committee, appointed by the Clinical Society of London to inquire into the subject of spina bifida, there was a case recorded, where paralysis supervened and persisted after the cure of the tumor, and appeared to be due to the treatment adopted In several cases temporary paralysis occurred, which passed off in a variable time, once complete paraplegia, which subsequently disappeared In three cases, hydrocephalus set in subsequently to the cure of the spina bifida Of the various operative measures, that by the injection of iodo glycerine was recommended in preference to any, as promising the greatest success, though the table of results showed that of 71 cases, only 35 recovered, 27 died, 4 were relieved, and 5 unrelieved As evidence of the frequency and serious nature of this affection, it appeared that it caused no fewer than 647 deaths in 1882, of which 615 were in children under one year of age —*British Medical Journal*, April 10, 1886

PHYSIOLOGICAL AND THERAPEUTIC EFFECTS OF ADONIDINE —DR HOBART ARMORY HARE, of Philadelphia, in an article on this subject, gives the conclusions of Durand, and then his own as follows

Durand says that in doses of gr ss adonidine—

1 Increases arterial tension
2 Regulates the heart-beat
3 Diminishes the frequency of the pulse
4 Increases the force of the cardiac contractions
5 Acts with rapidity, its effects being only present during its administration
6 Increases diuresis
7 Is well tolerated
8 That the indications for its use are the same as digitalis

He commends its use, especially in mitral insufficiency and interstitial myocarditis, and in palpitation of the heart Such a drug ought surely to be of signal service to the profession, for, though it is at present of high price, being made almost entirely by Merck of Darmstadt, there is no reason why a continued call for it should not make its cost within the reach of everyone, the adonis vernalis being by no means rare, its rhizome having been used as an adulterant for black hellebore, and the process of obtaining the glucoside is not expensive.

Conclusions.—Adonidine in all doses increases arterial pressure by stimulating the vaso-motor centres and by increasing the cardiac force.

In moderate doses it increases the pulse rate and force from the first, but when large toxic doses are given, it primarily slows the heart by stimulating the pneumogastric, and then increases pulse-rate by depressing the inhibitory nerves and stimulating the accelerator apparatus.

The slowing of pulse-rate is also in all probability due in part to increased arterial pressure, as under these circumstances the blood-paths are greatly diminished in calibre.

On the nervous system the drug has but little action, unless the quantity administered be enormous. Under these conditions it paralyzes the sensory side of the cord, but has no effect on the motor tract or on the efferent or afferent nerve trunks.—*Therapeutic Gazette*, April 15, 1886.

SANTAL OIL IN URINARY AFFECTIONS.—DR. A. P. GIPOULOU gives the following as the results of his use of the oil of yellow sandal-wood: 1. In chronic and obstinate gonorrhœa no especially remarkable effects were produced. 2. In acute gonorrhœa accompanied by severe vesical tenesmus, frequent and painful micturition, etc., the acute symptoms were speedily relieved, though the discharge diminished only gradually in quantity. 3. In a case of suppurative nephritis of the left kidney, in which there was frequent micturition and the urine was loaded with pus an improvement was noted within twenty-four hours, and at the end of a fortnight the pus had entirely disappeared from the urine. 4. A railway employe was suffering from acute cystitis, accompanied by tenesmus and bloody urine, which had resisted the action of ordinary remedies for over a month, he was relieved permanently in a few days by the use of yellow sandal wood oil. 5. In a number of cases of vesical catarrh equally rapid and permanent results were obtained. 6. In three cases of simple acute unilateral nephritis speedy relief was afforded by the same remedy. 7. In two cases of nephritic colic excellent results followed the administration of santal oil, the attacks were promptly cut short, and an apparent cure was the result. 8. Finally, he relates a case of acute Bright's disease following scarlet fever, in which there was general anasarca and the urine was heavily loaded with albumin. During a treatment of four or five days with diuretics the œdema increased, but within two days after giving santal oil the improvement was marked, and at the end of a week the anasarca had disappeared and no more albumin could be found in the urine.—*Journal de Med. de Paris*, February 14, 1886.

MODIFICATION OF PIRIGOFF'S METHOD.—At the recent Congress of Russian practioners, Professor TAUPER described and demonstrated on the dead subject an operation for removal of the foot, which he believes has several advantages over Pirogoff's amputation. Standing on the outer side of the limb, he commences an incision at the insertion of the tendo Achillis, and carries it forward just below the external malleolus to the dorsum of the foot, and then vertically downwards on the inner side in front of the heel. When the middle line of the sole is reached the incision is carried along it backwards and prolonged upwards to the starting point at the insertion of the tendo Achillis, a flap having thus been cut consisting of the inner side and half of the sole of the heel. The joint is then opened, the external ligaments being first divided and then the internal. The astragalus is seized with the bone forceps and removed, and the anterior part of the foot cut off by Chopart's line, nothing being left but the os calcis, the soft coverings of which on the inner aspect are untouched. The os calcis is seized with the bone forceps and turned so that the articular surface is towards the operator. The forceps are now taken by an assistant, who holds them tightly, the operator then saws the bone longitudinally in two, the outer half, which is free, is removed, the inner half remaining attached to the flap. The ends of the tibia and fibula are then sawn off just above the malleoli. The cut surfaces of these will be found to correspond almost exactly with that of the os calcis, which is now brought into apposition with them. The advantages claimed for this operation are: 1. The posterior tibial artery is itself untouched, only its branches being divided. 2. The insertion of the tendo Achillis, as well as its bursa, are not injured. 3. The surfaces of the os calcis and of the leg bones correspond very nearly to one another.—*Lancet*, April 3, 1886.

ANTIDOTE TO COCAINE POISONING.—DR. F. SCHILLING describes a case of cocaine poisoning, coming on after the drug has been locally applied for the extraction of a tooth. The patient was a woman aged 28, in the seventh month of pregnancy. The injection of two drops of a 20 per cent. solution of cocaine caused sufficient anæsthesia for the extraction of the tooth. As the patient was leaving the room the dentist noticed that her eyes were fixed, and a few minutes after making her sit down she became unconscious, reacting to no stimulus. The injection of ether had no result. During the unconscious state, which lasted over half an hour, the breathing was quiet, the pulse 86, and regular, the eyes were wide open, with medium sized pupils, and the conjunctival reflex had disappeared. The patient could not be roused by shouting, but after a time began to call her husband by name. Dr. Schilling, considering that the condition was due to anæmia of the brain, advised the inhalation of amyl nitrite. The first inhalation seemed to rouse her, and after the second she could answer questions hesitatingly, but correctly. She was well in a short time. As the author states, it is a question whether the symptoms were not due to shock, as the patient was pregnant. He, however, considers this an improbable explanation.—*London Medical Record*, March 15, 1886.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address,
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, MAY 1, 1886.

PELVIC ABSCESS IN THE MALE.

At the meeting of the New York Academy of Medicine, held on April 15, DR. T. HERRING BURCHARD, Lecturer on Surgical Emergencies at Bellevue Hospital Medical College, read a paper on "Pelvic Abscess in the Male," which was of special interest on account of the presence at the meeting of a patient on whom Dr. Burchard had performed laparotomy for the relief of the condition named. The details of this case may be found in our New York letter for this week.

While pelvic abscesses in the male have not attracted the same surgical attention as those occurring in the female, the serious nature of the affection, Dr. Burchard thinks, is quite as great in the one as in the other. He also believes that it is of more frequent occurrence than the meagre literature of the subject would lead us to suppose. By pelvic abscess he desires to be understood as meaning a phlegmonous inflammation occurring in the superior portion of the pelvic cavity—below the cavity of the abdomen, from which it is separated by the pelvic reflections of the peritoneum, and above the muscular floor formed by the levator ani muscle. It is not to be confounded with abscesses of the abdomen—typhlitic, perityphlitic, etc.,—nor with those originating below the levator ani, in the ischio rectal fossa. Mr. Henry Morris divides such iliac abscesses of pelvic origin into two groups: (1) the subperitoneal, and (2) the sub aponeurotic. The former, he claims, are prone to spread widely, in both an upward and a downward direction, reaching the upper boundaries of the abdomen and even burrowing behind the diaphragm, while the latter are more circumscribed, forming between the fascia iliaca and iliac muscle, and producing caries or necrosis of the bone.

The clinical history and symptoms naturally vary according to the acuteness or latency of the attack. Should the attack be acute, both the constitutional and the local disturbance are proportionately greater, and it may readily be mistaken for one of general or circumscribed peritonitis, on account of the similarity of the symptoms. Abscesses which form thus acutely are more likely to evacuate themselves spontaneously, either in the rectum or the bladder, than those of a subacute or chronic character. The inference is logical that suppuration, when it occurs, does so a considerable time before it makes itself manifest by external tumefaction, and that the delay in getting the evidences of abscess is not due to absence of pus, but rather to the difficulty which the pus has, on account of the suppurative process, in coming to the surface. During all this time, however, the constitutional evidences of internal suppuration are more or less pronounced, and a carefully conducted examination at this stage may prevent many months of tedious suppuration, with its attendant evils.

Nevertheless, chronicity, rather than acuteness, seems to be the rule with pelvic phlegmons in the male, except in cases having a traumatic origin, and the affection most frequently occurs in the poorly nourished and cachectic, in whom inflammatory processes are slow. The diagnosis in such cases is often very difficult, partly on account of the inaccesibility of the parts affected, and partly owing to the perplexity of symptoms arising from so many different tissues, organs, blood vessels and nerves being implicated in the inflammation. Speaking further in regard to diagnosis, Dr. Burchard said that inflammation, occurring here, manifests itself, in addition to local distress or pain, which is generally severe in character, by the usual constitutional disturbances. After tumefaction has occurred, another set of symptoms arises, due to pressure on sensitive nerves and organs.

Another feature, peculiar to these abscesses, is their tendency to burrow, and there are very great dangers attendant thereupon. Their natural destination should be the peritoneum, and such, doubtless, would be the case, were it not that the extremely dense fibres of the levator ani and the prostatic muscles, which are largely composed of firm, fibrous tissue, present an almost impenetrable obstacle. The next most natural route would seem to be the rectum, and here many of these abscesses are evacuated. Many, however, mount the pelvic cavity, and appear within the abdomen, after which their course is erratic.

Clinically, it is important to distinguish between an inflammatory condition pure and simple—a cellulitis simplex—and the same condition after it has passed into the suppurative stage The presence of pus cannot be recognized at too early a period It is likewise necessary to distinguish between a pelvic cellulitis and general or localized peritonitis, and also between this and cystitis, proctitis and prostatitis Rheumatism and neuralgia, too, must be borne in mind Surgically, it is necessary to differentiate between abdominal abscesses, ileo-pelvic abscesses, pelvic abscesses, abscesses of the ischio rectal fossa and perineal abscesses Exceptional possibilities must be carefully considered—such as hernia strangulated in the pelvic foramina, passage or impaction of renal calculi, acute inflammation of the psoas muscle, typhlitis and perityphlitis, and lastly, scrofulous, malignant, tubercular and syphilitic diseases of the pelvic glands

The treatment of these abscesses, externally, resolves itself into treatment of the cellulitis before suppuration, and treatment after suppuration is established In the first case rest, morphia, quinine in free doses, local refrigeration, and, possibly, local depletion by leeches to the perineum, are required In employing cold in this or any other inflammatory condition about the rectum, Dr Burchard thinks that nothing equals in efficacy and comfort the continuous douche of cold water, which passes up and immediately returns through a double flow blind tube The great mistake that is often made by the inexperienced in the application of either this or the ice coil is in applying it too cold at first The water at first should be warm, and then gradually cooled until ice water can be used, and with astonishing relief

During the stage of acute inflammation frequent rectal explorations should be desisted from, as they often do more harm than good After suppuration may reasonably be expected, a careful examination, under anæsthesia, should be made, in order that the abscess may be evacuated into the rectum at the earliest possible moment If evidence of internal suppuration is present, and there is reason to believe that pus is burrowing upwards, an abdominal exploratory incision is obviously demanded If this can be made without opening the cavity of the peritoneum, it certainly should so be done The object to be attained, however, is the evacuation of the pus, but we cannot always be successful in this, as adhesions will at times form impassable barriers

RICH LEGACIES WELL BESTOWED

We are reminded by the account of the laying of the corner stone of the new building of the College of Physicians and Surgeons, the Medical Department of Columbia College, of New York, on the 24th of April, 1886, of the very liberal and yet remarkably considerate bequests of the Vanderbilt family for the advancement of medical science and art, and thereby the more efficient prevention or relief of human suffering First, the late Wm H Vanderbilt donated $500,000, of which $200,000 was for the necessary building lots and the remainder for erecting new college buildings, reserving perhaps something as an endowment of the scientific laboratories Next his daughter, Mrs Sloane, added $250,000 for the founding of a Maternity Hospital and endowing it with perpetual free beds, which was to occupy a part of the same lots, and finally the four sons of Wm H Vanderbilt have given $250,000 more to establish on the same premises an extensive Clinic and Free Dispensary for the poor By thus aggregating the magnificent sum of $1,000,000, one of the oldest medical colleges in this country is placed in a condition not only to furnish facilities for the most complete education of medical men in all departments, both scientific and practical, but also to prosecute such original researches as add to the sum of human knowledge and increase the resources for relieving human suffering for generations to come And yet the Maternity Hospital, and the Clinic and Dispensary, will be an ever present resource for the relief of large numbers of the suffering poor

If the actual relations of medical education to the health and comfort of the human family are studied, we doubt whether $1,000,000 has ever been donated to one general purpose with more wisdom than in the present instance And if the men and women in our country possessed of great wealth would give more thought to the modes by which they could so bestow a portion of their wealth as to make it the means of perpetually increasing the knowledge of diseases and their remedies and in the same ratio diminishing human suffering and prolonging human life, the example furnished by the Vanderbilt family would find many followers Wealthy men in Chicago have invested more money in building and furnishing mere *club-houses*, than would be required to endow and perpetually maintain the scientific and practical laboratories of all the regular medical colleges of this city The comparatively small sum of $100,000 donated to the Trustees of the Chicago Medical College as a special or perpetual endowment of her histological, physiological, pathological and chemical laboratories, in addition to her present equipments, would at once add an efficient department of original investigation as active as in any of the institutions of

Europe We mention the Chicago Medical College, because it was the first medical college to establish and maintain a thoroughly graded system of medical instruction in this country, and a high standard of requirements for graduation, but we would also rejoice to see every meritorious medical college in our country in the possession of similar endowments

It is too much the custom of our people to divide their surplus wealth among too many institutions, whether educational or otherwise, and by so doing the greater part of it becomes immediately absorbed in buildings and grounds, leaving little or nothing as permanent endowments for maintaining perpetual and efficient instruction and research Let those in possession of a surplus of this world's goods think of these things

DR GRAHAM'S ADDRESS

The address of Dr D W Graham to the graduating class of the Woman's Medical College, at the closing exercises a few weeks ago, which is published in this issue of The Journal, is so different from the usual address of the kind, in this country at least, that it may not be inappropriate to call more particular attention to some of the many suggestive ideas embodied in it As was pointed out in an editorial article in The Journal of May 23, 1885, the usual valedictory, inaugural, graduate, and alumni address contains more or less assertion that the profession in this country is in a state of scientific and educational depravity In the address under consideration, however, the author has risen above such pessimistic views and instead of taking an icteric view of the past and present he speaks wisely and hopefully of the present and future

The first point upon which Dr Graham touches, a matter which has been much discussed of late years, is the fitness and capacity of woman for the study of medicine That women are both fitted and capacitated for the study of medicine few will deny, save upon the grounds that woman's place is the home circle, and that she is physically unsuited to the demands of modern medicine But let us take another aspect of the case, leaving out of view for the present those who intend to practise medicine in their own (civilized) country A recent report of the New York Medical Missionary Society says, according to the *Medical Record*, of April 17 "About forty millions of heathens die every year with scarcely any medical aid There are two white missionaries to about one million of heathens There is one medical missionary to about ten millions of heathens Modern medicine and surgery appear miraculous to the heathens, it is often very difficult to prevent them from even worshipping a doctor Their gifts in gratitude for medical aid would shame many Christians A medical missionary can, to a large extent, obtain his own support His medical skill will open doors otherwise closed to the gospel" So much has been said in the journals of the past two or three years of the Chinese and Hindoo customs which prevent the attendance upon sick women of male physicians that it is only necessary to make this allusion to them Here, then, is the great field for the female physician, and this has been fully shown in the past year by the results of the munificent charity of Lady Dufferin It is very doubtful if any purely missionary society will be able to show the results, within the next five years, that will follow Lady Dufferin's charity

But apart from this, there is a field in home medicine for woman—a fact that is so clearly shown in Dr Graham's address that it need scarcely be discussed The female physician, on account of the demands of the profession, may not live so long as she might otherwise, but it is to be remembered that "the life is long which answers life's great ends" On the other hand, her knowledge of medicine may so guide her as that she will avoid, and, better than the man, induce other and non professional women to avoid, many of the follies of civilization, so that life may be longer, happier, and more fruitful If medicine has a place in moral education, surely medically educated women have some part of that place, and it must be claimed that the education in which medicine has a place is the triple education—moral, mental and physical To quote the words of Dr Graham "There is a positive demand for the services of medically educated women Here are opportunities enough and scope enough for all shades of tastes and all degrees of talents," in preventive medicine, in investigating the questions relating to the defective and helpless classes of society, the moral defects and deformities of youth and adult life, and in placing the triple education of which we have just spoken on a sound and scientific basis "Women are peculiarly adapted for much of this kind of work" Of "the thousands of women of our land without occupation, with physical and mental capacity for a long life of usefulness, with noble and philanthropic aspirations," many "will find in these fields abundant work which will yield the most beneficent and tangible results"

Dr Graham makes some very pertinent remarks on the "overcrowded condition of the medical profession" It is not so much those who look for places inflammatory condition pure and simple—a cellulitis simplex—and the same condition after it has passed into the suppurative stage The presence of pus cannot be recognized at too early a period It is likewise necessary to distinguish between a pelvic cellulitis and general or localized peritonitis, and also between this and cystitis, proctitis and prostatitis Rheumatism and neuralgia, too, must be borne in mind Surgically, it is necessary to differentiate between abdominal abscesses, ileo-pelvic abscesses, pelvic abscesses, abscesses of the ischio-rectal fossa and perineal abscesses Exceptional possibilities must be carefully considered—such as hernia strangulated in the pelvic foramina, passage or impaction of renal calculi, acute inflammation of the psoas muscle, typhlitis and perityphlitis, and lastly, scrofulous, malignant, tubercular and syphilitic diseases of the pelvic glands

The treatment of these abscesses, externally, resolves itself into treatment of the cellulitis before suppuration, and treatment after suppuration is established In the first case rest, morphia, quinine in free doses, local refrigeration, and, possibly, local depletion by leeches to the perineum, are required In employing cold in this or any other inflammatory condition about the rectum, Dr Burchard thinks that nothing equals in efficacy and comfort the continuous douche of cold water, which passes up and immediately returns through a double flow blind tube The great mistake that is often made by the inexperienced in the application of either this or the ice coil is in applying it too cold at first The water at first should be warm, and then gradually cooled until ice water can be used, and with astonishing relief

During the stage of acute inflammation frequent rectal explorations should be desisted from, as they often do more harm than good After suppuration may reasonably be expected, a careful examination, under anæsthesia, should be made, in order that the abscess may be evacuated into the rectum at the earliest possible moment If evidence of internal suppuration is present, and there is reason to believe that pus is burrowing upwards, an abdominal exploratory incision is obviously demanded If this can be made without opening the cavity of the peritoneum, it certainly should so be done The object to be attained, however, is the evacuation of the pus, but we cannot always be successful in this, as adhesions will at times form impassable barriers

RICH LEGACIES WELL BESTOWED

We are reminded by the account of the laying of the corner-stone of the new building of the College of Physicians and Surgeons, the Medical Department of Columbia College, of New York, on the 24th of April, 1886, of the very liberal and yet remarkably considerate bequests of the Vanderbilt family for the advancement of medical science and art, and thereby the more efficient prevention or relief of human suffering First, the late Wm H Vanderbilt donated $500,000, of which $200,000 was for the necessary building lots and the remainder for erecting new college buildings, reserving perhaps something as an endowment of the scientific laboratories Next his daughter, Mrs Sloane, added $250,000 for the founding of a Maternity Hospital and endowing it with perpetual free beds, which was to occupy a part of the same lots, and finally the four sons of Wm H Vanderbilt have given $250,000 more to establish on the same premises an extensive Clinic and Free Dispensary for the poor By thus aggregating the magnificent sum of $1,000,000, one of the oldest medical colleges in this country is placed in a condition not only to furnish facilities for the most complete education of medical men in all departments, both scientific and practical, but also to prosecute such original researches as add to the sum of human knowledge and increase the resources for relieving human suffering for generations to come And yet the Maternity Hospital, and the Clinic and Dispensary, will be an ever present resource for the relief of large numbers of the suffering poor

If the actual relations of medical education to the health and comfort of the human family are studied, we doubt whether $1,000,000 has ever been donated to one general purpose with more wisdom than in the present instance And if the men and women in our country possessed of great wealth would give more thought to the modes by which they could so bestow a portion of their wealth as to make it the means of perpetually increasing the knowledge of diseases and their remedies and in the same ratio diminishing human suffering and prolonging human life, the example furnished by the Vanderbilt family would find many followers Wealthy men in Chicago have invested more money in building and furnishing mere *club-houses*, than would be required to endow and perpetually maintain the scientific and practical laboratories of all the regular medical colleges of this city The comparatively small sum of $100,000 donated to the Trustees of the Chicago Medical College as a special or perpetual endowment of her histological, physiological, pathological and chemical laboratories, in addition to her present equipments, would at once add an efficient department of original investigation as active as in any of the institutions of

Europe We mention the Chicago Medical College, because it was the first medical college to establish and maintain a thoroughly graded system of medical instruction in this country, and a high standard of requirements for graduation, but we would also rejoice to see every meritorious medical college in our country in the possession of similar endowments

It is too much the custom of our people to divide their surplus wealth among too many institutions, whether educational or otherwise, and by so doing the greater part of it becomes immediately absorbed in buildings and grounds, leaving little or nothing as permanent endowments for maintaining perpetual and efficient instruction and research Let those in possession of a surplus of this world's goods think of these things

DR GRAHAM'S ADDRESS

The address of Dr D W Graham to the graduating class of the Woman's Medical College, at the closing exercises a few weeks ago, which is published in this issue of The Journal, is so different from the usual address of the kind, in this country at least, that it may not be inappropriate to call more particular attention to some of the many suggestive ideas embodied in it As was pointed out in an editorial article in The Journal of May 23, 1885, the usual valedictory, inaugural, graduate, and alumni address contains more or less assertion that the profession in this country is in a state of scientific and educational depravity In the address under consideration, however, the author has risen above such pessimistic views and instead of taking an icteric view of the past and present he speaks wisely and hopefully of the present and future

The first point upon which Dr Graham touches, a matter which has been much discussed of late years, is the fitness and capacity of woman for the study of medicine That women are both fitted and capacitated for the study of medicine few will deny, save upon the grounds that woman's place is the home circle, and that she is physically unsuited to the demands of modern medicine But let us take another aspect of the case, leaving out of view for the present those who intend to practise medicine in their own (civilized) country A recent report of the New York Medical Missionary Society says, according to the *Medical Record*, of April 17 "About forty millions of heathens die every year with scarcely any medical aid There are two white missionaries to about one million of heathens There is one medical missionary to about ten millions of heathens Modern medicine and surgery appear miraculous to the heathens, it is often very difficult to prevent them from even worshipping a doctor Their gifts in gratitude for medical aid would shame many Christians A medical missionary can, to a large extent, obtain his own support His medical skill will open doors otherwise closed to the gospel" So much has been said in the journals of the past two or three years of the Chinese and Hindoo customs which prevent the attendance upon sick women of male physicians that it is only necessary to make this allusion to them Here, then, is the great field for the female physician, and this has been fully shown in the past year by the results of the munificent charity of Lady Dufferin It is very doubtful if any purely missionary society will be able to show the results, within the next five years, that will follow Lady Dufferin's charity

But apart from this, there is a field in home medicine for woman—a fact that is so clearly shown in Dr Graham's address that it need scarcely be discussed The female physician, on account of the demands of the profession, may not live so long as she might otherwise, but it is to be remembered that "the life is long which answers life's great ends" On the other hand, her knowledge of medicine may so guide her as that she will avoid, and, better than the man, induce other and non professional women to avoid, many of the follies of civilization, so that life may be longer, happier, and more fruitful If medicine has a place in moral education, surely medically educated women have some part of that place, and it must be claimed that the education in which medicine has a place is the triple education—moral, mental and physical To quote the words of Dr Graham "There is a positive demand for the services of medically educated women Here are opportunities enough and scope enough for all shades of tastes and all degrees of talents," in preventive medicine, in investigating the questions relating to the defective and helpless classes of society, the moral defects and deformities of youth and adult life, and in placing the triple education of which we have just spoken on a sound and scientific basis "Women are peculiarly adapted for much of this kind of work" Of "the thousands of women of our land without occupation, with physical and mental capacity for a long life of usefulness, with noble and philanthropic aspirations," many "will find in these fields abundant work which will yield the most beneficent and tangible results"

Dr Graham makes some very pertinent remarks on the "overcrowded condition of the medical profession" It is not so much those who look for places as those who make places, who find them, not those who stay in the rear and wait, like Micawber, for something to turn up The recent graduate, like the one of long standing, has a trust and responsibility in the honor of the profession, and should he see those going astray who are old enough to set a better example, let him or her hold still more firmly to honor and duty, and remember that medicine when followed as a science and profession is the noblest of all arts, but when entered into with any other view it is the most despicable of trades

ADENINE—A NEW ANIMAL POISON

In March, 1885, Kossel published an account of a new base, to which he gave the name adenine, which he extracted from the spleen and pancreas, though he says that it is present in all vegetable and animal cells It is an alkaloid, and isomeric with hydrocyanic acid, and Kossel claims that it proceeds from the physiological decomposition of nucleine, of which the cellular nuclei are composed Nucleine may be decomposed, when isolated, into albumen, phosphoric acid and adenine, and when adenine is treated with nitrous acid it is transformed into hypoxanthine or sarcine

M Gautier now claims that this discovery of Kossel, and its confirmation by M Morelle, in Gautier's laboratory, uphold his leucomaine theory M Morelle finds that adenine is present under normal conditions, and has a powerful influence on the medulla, causing asphyxia and collapse when injected under the skin of guinea pigs and frogs, the symptoms being somewhat similar to those caused by muscarin and digitalin Accordingly Gautier now announces a general medical law which must henceforth be taken into consideration Not only the most highly organized cells constantly manufacture poisonous substances, but their nuclei and protoplasm have a groundwork, consisting of an aggregation of most potent toxic molecules

We may very properly ask, with M Colin, why animals which are fed on the spleen and pancreas do not die of this terrible poison? M Gautier replies that the quantity of the poison in a few pounds of spleen or pancreas is too small, that though adenine is isomeric with hydrocyanic acid, it has not the same properties, and that all living cells contain a substance isomeric with hydrocyanic acid But does he not mean that cells once living contain, when dead *and treated with chemical agents*, poisonous substances? This does not prove that the poisonous substances were in the cells while they were a part of the living body If it could be shown that adenine is a cumulative poison it would seem to follow that animals fed constantly on the spleen and pancreas should in time show symptoms of the poisonous action

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, April 19, 1886

THE PRESIDENT, E J DOERING, M D,
IN THE CHAIR

DR G C PAOLI read a paper entitled

THE REASONS WHY FEMALE PHYSICIANS ARE DESIRABLE IN INSANE ASYLUMS

He demonstrated that the most eminent specialists in pschiatry in the United States are a unit in maintaining that female physicians are best qualified for treating the female insane Many States have passed laws requiring one female physician to be allotted to each one hundred female insane in their asylums

DR J G KIERNAN said eminent authorities had already pointed the relation which exists between uterine disease and insanity Popular opinion is growing in favor of the employment of female physicians in the treatment of the female insane

DR WM T BELFIELD reported nine cases of

IMPERMEABLE STRICTURE TREATED BY ELECTROLYSIS

(See THE JOURNAL, April 24, p 455)

During the past two years he has treated thirty seven cases of stricture by electrolysis, and except for strictures located within an inch of the meatus, and for strictures of large calibre elsewhere, considers it preferable to dilatation and urethrotomy for the following reasons 1 It will pass through any stricture, however tight, rigid, long or tortuous 2 As a rule it causes no pain, bleeding, chill, nor urethral fever 3 It is always devoid of danger 4 Its effects are lasting

In certain numerous cases electrolysis is not merely a preferable, but really the only practicable treatment Such are, 1, old, rigid, cartilaginous strictures in men of middle or advanced age, where urethrotomy is dangerous and dilatation ineffectual, 2, impermeable strictures, 3, tight and rigid strictures with perineal or scrotal fistulæ

Dr Belfield then narrated the successful treatment by electrolysis of nine such cases In three of these there was complete retention of urine, the bladder being distended above the umbilicus, these strictures were absolutely impermeable, to urine from within as well as *to instruments from without* In each case a No 10 electrode (French) was passed into the bladder in less than twenty minutes, permitting the immediate introduction of a catheter In each of these cases perineal section would have been, without the battery, inevitable

In the remaining six cases Dr Belfield, as well as other surgeons, had failed in attempts to pass bougies into the bladder, yet as the patients were still enabled to force a feeble, dribbling stream outward, these strictures were theoretically permeable, though practically impermeable In these also a small electrode readily entered the bladder in one or two sittings

In one case, seen in consultation with Dr Miller, the patient had a series of tight, rigid, impermeable strictures, and twenty-seven fistulous openings in the scrotum and perineum, he had submitted to both internal and external urethrotomy, and to numerous unsuccessful attempts at dilatation, was urinating every half hour, day and night In fifteen minutes a No 10 bulb entered the bladder, that night patient rose only once to urinate, and for the first time in several years the urine flowed entirely from the meatus and not from the fistulæ

The unfavorable results obtained by various physicians in their attempts at electrolysis have been caused by the use of improper currents, whereby heat was generated and the urethra cauterized causing violent inflammation and even extensive sloughing When properly used, the heat produced is insignificant, with six to fifteen small cells and a weak fluid, the cicatricial tissue constituting the stricture is dissolved away but not cauterized Since cicatricial tissue is but scantily supplied with blood, and is therefore poorly nourished, it yields to a dissolving current which is insufficient to disturb the healthy urethral tissues

Dr L L McArthur said he had treated with success by electrolysis one case in which numerous operations had already been performed When patient came to him he could pass a No 8 sound, used No 9 electrode, and the patient can now pass No 15 American sound Never had any pain or difficulty in micturating since the operation

Dr M B Brown detailed two cases of impermeable and two of permeable stricture, in which he used electrolysis with good result

Dr C Fenger said he must confess that he was somewhat surprised by seeing the announcement of Dr Belfield's paper "nine impermeable strictures treated by electrolysis" He had tried electrolysis a few years ago, but never had any success from it It surprised him that Dr Belfield should meet with nine impermeable strictures in a very short period of time, while Sir Henry Thompson has only met with three impermeable strictures in his whole life By hearing the paper read, however, he understood that Dr Belfield does not mean to say that the strictures were impermeable in the strict sense of the word—the only correct one—but only meant that it was difficult to pass any instrument through these strictures Sir Henry Thompson, in his 'Diseases of the Urinary Organs," of 1882, p 28, says "Impermeability cannot be held to describe a character, a physical quality of the stricture itself, but rather indicates the quality of the surgeon who has treated it" Impermeable stricture is a contradiction in terms, it is not heard of so much now as it was twenty years ago Dittel of Vienna, in speaking about relative and absolute impermeable strictures, says a stricture may be impermeable for one man, or at a certain time, and permeable for another man, or at another time Other modern authors on surgery, as Konig and Albert, speak about the matter in a similar way

The second surprise to him was the advocated treatment by electricity, or electrolysis There has always been in his mind a suspicious halo of mysticism about the electrolysis, whether applied to the different forms of surgical tumors or to strictures of the urethra He understands from the paper, that the electrolysis does not mean galvano caustic treatment, although quite recently Jardin, of Paris, uses a small galvano cautery knife for passing slowly through the stricture Dr Belfield warns very justly against cauterization The non-caustic electrolysis is to me a very mystic process Dr Fenger remembers years ago of one of Billroth's clinics which he spoke about electrolytic treatment of venous angiomas of the face, that he expressed as the result of his experience the following "The electrolystic needle has no more or other effect on the tumor in question, than the mere mechanical disturbance of the tissue elements, that is, than any other needle not connected with a battery would produce"

Frankly, Dr Fenger said that the historical fate of electrolysis in strictures, as well as elsewhere, up to date, has invariably been the following Ever since Tripier, in 1864, and Mallez, in 1872, applied the electrolysis in strictures of the urethra, this method of treatment has come to the surface once every two or three years only to disappear again, and it has never been able to take any hold on the profession, not because it has not been tried, but rather because it has not been found superior, or even equal, to the other methods Dittel states that, on the rather promising representations of Tripier and Mallez, he tried electrolysis in three cases of very narrow stricture It proved of no effect in any of the cases, and in one of them a local inflammation followed Sir Henry Thompson does not even mention the electric treatment anywhere in his writings about strictures, but warns very emphatically against any method of cauterization Konig says, in a very short appended notice, that only the short and soft strictures depending upon a polypus or warty growth of granulation-tissue are proper objects for cauterization, either chemical (Duchamp), or galvano caustic (Middeldorf) Otis, our American authority in this line of surgery, does not mention electrolysis with a word

Newman, of New York (*Medical Record*, August 12–19, 1882), is not only the advocate of electrolysis in this country, but has written so assiduously and specified the method so minutely as to have it termed, in the foreign literature, "Newman's method" In 1882, Newman's old and new cases numbered twenty three only In reporting Newman's articles for Virchow's *Jahresbericht*, Guterbock, of Berlin, says that "Newman's method has already, in 1872 and 1876, been criticised so thoroughly that not much more need be said about it" Dikmann, in New York *Medical Record*, Jan 5, 1884, reports twenty eight cases Graf, in Norway, reports, in 1884, two cases treated by 'Newman's method," and Verneuil, in

1884, recommends Jardin's "electrolyse lineavu"—that is, cauterization

Thus the electrolytic treatment of stricture has been tried off and on for over twenty years, but has only taken hold here and there, sporadically, and for a short time It has in the urethral, not any more than in the other fields of surgery, as yet to any extent replaced the more rational treatment by mechanical means

The electrolysis may, however, have a further trial, and if the success in extensive resilient strictures, as in one of Dr Belfield's cases, should prove to hold good for other cases of that kind, it is possible that this treatment will have a better fate in the future than it has had in the past

Dr R Tilley said he did not consider electrolysis to be the proper term to be used in connection with the use of electricity in the manner suggested Electrolysis, in the ordinary acceptation of the term, means the decomposition by electricity of water, or tissues, being in the nature of a chemical decomposition He would like to know how far apart the electrodes were placed (Dr Belfield replied that the negative electrode was placed in the urethra, and the positive pole in any position on or near the penis, according to the effect intended) He could not see how electrolysis could be produced with the electrodes so far apart, and a weak fluid, without a cauterizing effect From his extensive experience of cocaine in producing contraction of the tissues in the nose, he would expect to secure as good if not better results, reasoning by analogy, in its use in strictures of the urethra as in the use of electricity He would think its internal application would be followed by wonderful results

Dr W T Belfield closed the discussion by saying that in reply to Dr Fenger's criticism that these strictures were not impermeable, he would remind him that he called six of them "theoretically permeable, practically impermeable," that is, a feeble stream was forced through, but no instrument could be introduced The remaining three were absolutely impermeable to urine as well as instruments They were water-tight, the bladder in each case being immensely distended Dr Fenger, in the cases where he attempted electrolysis, evidently made the usual mistake he employed a strong current and *cauterized*, but did not electrolyze, the stricture With a proper current he would probably have a better result Sir Henry Thompson and Prof Dittel do not, it is true, endorse electrolysis, but he knows that neither of them has ever fairly tried it, they have contented themselves with the vague, unfavorable verdict of those who, having once or twice misused the current, attribute to the battery the faults which belong to themselves Thompson's conservatism and intolerance are notorious, he bitterly opposed Bigelow's litholapaxy (without trying it) until it was adopted by everybody else

Possibly, as Dr Fenger says, these is no "urgent necessity" for any other method than urethrotomy and dilatation, but surgeons who have to treat many such strictures as those described in the paper under discussion, think otherwise These methods certainly possess one point of national economic value which electrolysis lacks, namely they assist in repressing the excess of population by quietly removing many patients

Electrolysis "bobs up" and down only when ignorantly used, when properly employed it comes to stay

To Dr Tilley he would say that the action is properly termed "electrolysis," it is the same effect as is seen in the decomposition of water, and is produced by the same current During the action of the current a white foam and bubbles come up alongside the instrument Cocaine causes contraction of blood vessels in the urethra as well as in the nose, but it can not, so far as he is aware, remove cicatricial tissue in either locality

In conclusion, he would repeat that the secret of success lies in securing chemical force and avoiding heat, the former removes the stricture easily and painlessly, the latter causes violent inflammation and sloughing

OSTEO PLASTIC RESECTION OF THE FOOT

Dr C Fenger then presented a patient before the Society with the following words I wish to bring this patient before the Society to illustrate the results of an operation called "osteo-plastic resection of the foot," and devised by Wladimnoft and Mikulicz The operation consists in removal of the heel, soft parts and bones, and then uniting the remainder of the foot to the tibia in the position of an artificial pes equinis As you will see, the patient has on a plaster cast from the toe to below the knee, and is able to walk in this cast without crutch or cane He limps because the leg operated upon is two inches longer than the other one, and not because of inability to step on the leg He will have in future to wear a high sole or heel under the well foot While this plaster cast is being taken off I shall pass round the specimen of the removed heel and say a few words about the operation

The patient had suffered for one year from a chronic traumatic osteo myelitis of the tarsus resulting in anchylosis of the joints, fistulæ on dorsal side of tarsus and a loss of substance of the skin of the heel Pirogoff's or Syme's operation being out of the question, the choice was only between a supra malleolar amputation and the osteo plastic resection This operation was performed fourteen months ago Union of the bones took place in four to six months, and it is only the subsequent small operations for bringing the toes in dorsal flexion that have required so long a time before the patient has been able to commence to walk

The plaster cast being now removed, you will find the foot in the axis of the leg in equinus position, the toes dorsally flexed to a right angle with the foot There is active flexibility of the toes and some active mobility of the foot This mobility, however, does not take place between the united surfaces of the tibia and fibula on the one side and the scaphoid and cuboid bones on the other, as can be seen by examining the prominences representing the rudimentary newly formed malleoli—but the mobility takes place in the joints of the metatarsus As to the question whether these joints will be able to bear the strain of the weight of the body during walking with the foot in this abnormal position, this patient of course proves nothing as yet But from the other cases operated upon, in all nineteen, we can conclude that we have the right to expect a useful foot for walking A patient operated upon by Socin, in Basle, is able without boot—the boot devised by Miculicz, which I now pass round for inspection—or cane to walk, but can walk all day long and perform a farmer's work in the field You will further notice that the walking surface of the foot, being the plantar surface of the heads of the metatarsal bones and the toes, is considerably larger than the surface which either a Syme's or a Piragoft's operation would leave the patient to walk on This, together with the active mobility of the toes, is regarded as an advantage that functionally places the osteo plastic resection superior to the two other operations mentioned

We find by examining the foot everywhere painless on pressure, and consequently there is nowhere any recurrence of the disease

Mikulicz feared that the anterior tibial artery might not be sufficient for the blood supply of the foot, his method of operating dividing all the branches of the posterior tibial artery I had the same apprehension, and changed the incision so as to save one of the terminal branches of the last named vessel, namely, the internal plantar artery This fear is not unfounded, as in one of Sordina's cases operated upon according to Mikulicz's description, gangrene of the foot necessitated supramalleolar amputation on the fourth day The mortality of the operation is as yet none, but as all the nineteen cases have fallen within the last few years except Wladimnoff's, and consequently have been treated antiseptically, it cannot be said that the danger is less than either in Syme's or Pirogoff's operation There is no doubt that the functional results are far superior to that of a supramalleolar amputation even if the patient will always have to wear the Mikulicz boot Consequently it may be safe to say that osteo plastic resection has already a legitimate place, although perhaps as yet not strictly enough defined, in the surgery of the tarsus

---

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Origin of the Blood, from a Medico legal Point of View—Death of Professor Bouchardat

Dr Masson, Pharmacien major in the French army, has published an essay on *The Origin of the Blood, from a Medigo legal Point of View.* The difficulties attending this class of researches are very great, and the expert is often placed in an awkward predicament when called upon to give his opinion in a court of justice M Masson has endeavored in his essay to facilitate these researches so that the expert may always be ready with a definite reply as to whether a blood stain was produced by the blood of a man or an animal After giving the different modes of procedure to ascertain this fact, the author states that the great cause of the alteration of fresh blood globules resides in the dampness of the medium or vehicle in which they are contained, the effect of which is to prevent the evaporation of the water of the plasma In dried blood, the globule resists for a much longer time the causes of alteration, no liquid can regenerate the altered globules In the mensuration of the globules by the microscope, we may obtain an approximation of one fifth of a micromillimetre, but in reality, a variation of this infinitesmal quantity does not permit of any differentiation Moreover, in consequence of the great variability of the globular dimensions in the same species in a physiological state (Hayem), and particularly in a pathological state, (Kelsch found them augmented in volume in impaludism, and Malassez in chlorosis, according to this last author, the dimensions of the globules are reduced in cancer), the experiments must take a great number of mensurations and then strike an average

It is advisable to have at least five series of 30 mensurations, in five sittings and on five different preparations In operating on dried blood with the liquid of Virchow (solution of potash at 30 per cent) the conclusions arrived at are as follows the mean diameter of hæmatics being superior to $\frac{1}{130}$th part of a millimetre, the blood may belong to a man, a guinea-pig, a dog, a rabbit Below $\frac{1}{135}$th part of a millimetre, the blood does not very probably belong to a man, but to one of the animals which, after him and the guinea-pig, possesses the greatest number of globules Below $\frac{1}{140}$th of a millimetre the blood does not certainly belong to a man The author incidentally mentioned that the presence of nuclei can alone permit one to pronounce between the blood of oviparæ and that of mammifers

Dr Bouchardat, the eminent Professor of Hygiene at the Paris Faculty of Medicine, died on Thursday, April 8, in the 80th year of his age He occupied this chair for thirty four years, from which he had to retire not only on account of his great age, but because he was affected with deafness He took his degree in 1832 and was soon after promoted to Agrégé He was elected Member of the Academy of Medicine in 1850, and became its President in 1866 His funeral took place in the midst of a large concourse of friends and colleagues, but according to his desire there was no official representation The chief mourners were his two sons, one of whom is a Surgeon-Major in the French Army, and the other a professor at the School of Pharmacy The President of the Academy of Medicine at its meeting, April 13, after having retraced in touching terms the long scientific career of the lamented Professor, closed the meeting without proceeding any further, as a mark of respect

A B

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

Memorial Exercises in Honor of Dr Flint—Pelvic Abscess in the Male—Second Trial of General Shaler—The Vanderbilt Clinic—The "Medical Record" and the Academy of Medicine

The meeting of the New York County Medical Association, held April 19, was entirely devoted to memorial exercises in honor of the late Professor Austin Flint, and it proved a most impressive and interesting occasion The mourning decorations which had been put up in the lecture hall of the Carnegie Laboratory at the time of the Bellevue College Commencement last month, still remained in position, and the attendance of members was much larger than at any previous meeting of the Association, being considerably larger than even that at the meeting on the eve of the last annual session of the State Asssociation, in November, when Dr Flint read the admirable paper on *The Elements of Prognosis in Bright's Disease*, which has since attracted so much attention

It was deemed advisable to have brief addresses from as many of his associates, friends and former pupils as possible in the time at command, rather than a lengthened eulogy by some specially selected memorialist, and the plan proved a most excellent one The interest was thus maintained to the very last, while the high attainments, illustrious services and noble character of the departed master were presented in a more striking and varied manner, as viewed from so many different stand points, than could possibly have been accomplished by any one man

The exercises were opened by a carefully prepared and effective address by the President, Dr Charles A Leale, after which the resolutions, which had been drawn up by a special committee consisting of the Vice President, Dr John Shrady, and Drs E S F Arnold and J W S Gouley, were read by the Chairman, Dr Shrady The first, after the reading of the resolutions, to pay his tribute of affection and respect to the memory of Dr Flint, was Professor Lewis A Sayre, who spoke in a most feeling manner, and in the course of his remarks alluded to one of his traits which was especially worthy of imitation by all This was the lifelong habit of always setting about, at once, whatever he had to do, so that nothing ever came from his pen which was not complete and perfect in every detail In illustration of this, he stated that since Dr Flint's death, there had been found among his papers the address which he was to have delivered in August next before the British Medical Association, and which, even at this early date, was already entirely finished When this fact was known to the authorities of the Association, he had no doubt that they would request a copy of it for publication with the proceedings of the year's session

Among the others by whom addresses were made were the following —Prof Wm H Welch, of the Johns Hopkins University, Baltimore, Dr T R Varich, of Jersey City, Surgeon General of the State of New Jersey, and Drs E G Janeway, J Lewis Smith, J D Bryant, F E Dennis, Isaac E Taylor, Ellsworth Eliot, H M Biggs, and George L Peabody, of the Association A touching tribute was also paid by Prof Frank H Hamilton, who was associated with Dr Flint and the late Dr James P White in founding the Buffalo Medical College

Letters of regret were then read by the Secretary, Dr P Brynberg Porter, from Prof N S Davis, of Chicago, Dr E M Moore, of Rochester, President of the New York State Medical Association, Dr E D Ferguson, of Troy, Secretary of the Association, Dr Joseph R Hutchinson, of Brooklyn, and Dr Wm Detmold, of this city, the first President of the County Association A large number of other similar letters were received from members, as well as invited guests from a distance The Association will, no doubt, publish an official account of this memorial meeting, and in it will be included series of resolutions passed by the Association of Physicians, Louisville, Kentucky, and by the Erie County Medical Society, which were not received in time for the meeting

At the meeting of the Academy of Medicine on April 15, Dr T Herring Burchard read a paper on *Pelvic Abscess in the Male* Dr Burchard has met with five cases of pelvic abscess in his personal experience, and he gave the detailed histories of all of them in his paper That of the last and most interesting one, however, will suffice here Peter Murphy, aged 28, married, a porter by occupation, always temperate, and robust and strong up to March, 1882, at which time he was suddenly seized, after some unusual exertion, with sharp pains in the right iliac fossa, which lasted thirty hours This paroxysm terminated in a dull, heavy pain, which extended across the hypogastrium, into the left iliac region, and which continued with greater or less severity up to the time of his operation

In June, 1884, he was admitted to St Luke's Hospital, suffering from the same intense pain Poultices were applied, but no suppuration occurred In the following August, after several unsuccessful aspirations, an abscess of the right lumbar region, midway between the iliac crest and ribs, was evacuated by the late Prof James A Little The case was regarded by him as one of perityphlytic abscess At this time the patient's condition was very bad, with severe, steady pain deep in the pelvis and perineum, and darting pains extending through the rectum into the right testicle and down the sciatics There was also priapism, with involuntary nocturnal emissions In December, a second abscess was opened by Dr Little Although suffering more or less constant pain, his health improved during the winter, but in March and July following, other abscesses formed in the side and on the body of the ilium These were also opened In August and September he had the pain and constitutional disturbance of forming abscesses, but five incisions failed in giving vent to pus

October 5, patient's health evidently failing All the old pains have returned A careful examination, under ether, was made , but, owing to the thickness of the abdominal walls from fat, this was very unsatisfactory Rectal examination revealed nothing A localized phlegmon over the ilium, two inches below and to the front of the posterior superior spinous process was opened, and carious bone detected This was removed by gouge and augur The superficial caries led into a larger abscess cavity in the ilium, and this in turn communicated, by a direct opening, with the iliac fossa The finger, introduced through the bone, could detect nothing abnormal within the abdomen The carious bone being thoroughly removed, a lint of bichloridized oakum was introduced through the ilium, and the wound partially closed

October 29 After great pain, referred to the hypogastrium, right iliac region and right testicle, another abscess formed, and discharged through the opening in the bone The source of this could not be detected, and both external and rectal examinations failed to throw light on the case

In the early part of December another abscess formed within the pelvis, but instead of discharging through the opening in the ilium, pointed over the crest, and was evacuated at this point The patient's condition was now critical in the extreme He was rapidly losing strength and flesh, and was being worn out with constant pain and suppuration, while albumen, with hyaline casts appeared in his urine It was felt that something effective ought to be done, and yet there was nothing tangible upon which to found a diagnosis, beyond the fact that at irregular intervals abscesses in the right iliac region would form and discharge Repeated examinations were negative in results, but the indications clearly were to open the abdominal cavity (of course employing every antiseptic precaution), and, if possible, by stripping up the peritoneum from the right iliac fossa, to seek and remove the source of irritation

Operation—St Elizabeth's Hospital, February 1, 1886, Drs H Marion Sims, Mandeville, and C W Stimson, assisting, An incision was made commencing just above and posterior to the posterior inferior spinous process of the ilium, and following the bone downwards for a distance of five inches The dissection was carried through the abdominal muscles, and the peritoneum exposed This Dr Burchard endeavored to detach from the subjacent fascia, but so firmly adhered was it that, in spite of very gentle manipulation, it tore A flat sponge was introduced through the laceration, to hold back the intestines, while with the hand a thorough exploration was made Almost immediately a mass of adhesions was found that led to an abscess cavity which occupied the posterior half of the fossa, and extended, like a great sinus, directly from the ilium on the line of the pelvis and down into its cavity No dead bone could be detected The sinus having been laid open, its walls, which were almost cartilaginous, were thoroughly revivified with a dull curette The sinus through the bone was likewise curetted, and some carious bone removed Two drainage-tubes of soft rubber, eight inches long, were carried directly to the bottom of the sinus, and the whole thoroughly irrigated with a solution of the bichloride of mercury, 1 to 2000 The abdominal wound was now closed with deep and superficial sutures The incision leading through the bone was kept open, and dressed from the bottom with iodoform and bichlorodized oakum A superficial dressing of borated cotton was made over all

The patient rallied nicely On the third day the temperature rose to 102$\frac{1}{5}$° and the pulse to 120, and there was a very slight circumscribed peritonitis On the sixth day the patient's temperature was practically normal, and the discharge from the tubes scarcely amounted to half a drachm After this the tubes were shortened gradually, and at the end of three weeks were entirely removed, firm granulations having filled up the cavity of the sinus The opening through the bone has likewise been filled in with new tissue, and is now closed Dr Burchard then said that he had the pleasure of exhibiting the patient to the Academy in better health than he has enjoyed for years, and he certainly presented all the appearances of a man in robust physical condition

In the second trial of General Shaler for bribery in connection with the selection of an armory site for one of the militia regiments, the jury has again disagreed, this time standing four for conviction and eight for acquittal On the 26th of April is set down General Shaler's trial before the Mayor, on a charge of malfeasance in office as President of the Board of Health

On April 24th the corner-stone of the new building of the College of Physicians and Surgeons was laid by Mr George W Vanderbilt, the youngest son of the dead millionaire, Mr Chauncey M Depew delivering the address The four sons have just donated $250,000 for the erection and maintenance of a building for clinical purposes, to be known as the "Vanderbilt Clinic," which makes the total gifts of the Vanderbilt family to the College amount to about $1,000,000

P B P

P S—The New York *Medical Record* it will be seen, has seen fit to take your correspondent to task for the reference made in his last letter to the recent changes in the constitution and by laws of the New York Academy of Medicine, which it thinks "will be looked upon as unwise and unnecessary, if not actually malicious" Certainly nothing was further from his thoughts than any idea of maliciousness when he wrote it, but it did seem right to him that when a body of such high standing and influence, as the Academy of Medicine, deliberately cuts itself off, to a certain extent at least, from the profession throughout the country, this fact should be known to the profession at large The course which the Academy has pursued, it need hardly be said, has been most painful to many of those who have hitherto been among its best friends and most efficient and earnest supporters

Even in the best regulated folds black sheep are apt to be found, but if one is to accept the statements of the *Record*, the Fellows of the Academy are all very much in the blissful condition of certain perfectionists in some of the religious bodies, who claim to have attained such a state of sanctity that they cannot commit any sin It is not to be supposed that the Academy would take into its fellowship any one who was known to be a thief and black leg, but if it should afterwards be found that any of its Fellows were of such a character, it would certainly seem desirable that it should have some means for getting rid of the offending members As to whether any irregular practitioner will ever be received by it (against which, as has been pointed out, there is no restriction whatever in the constitution or by-laws), seems likely to depend on the men composing the committee on admissions hereafter When the application of a candidate has been favorably acted upon by this committee, it is an almost unprecedented thing for the applicant to be blackballed, and, in the growing laxity of feeling as regards irregulars in this community, it is not by any means inconceivable that at some time a committee on admissions may give its endorsement to the application of a candidate of the kind alluded to

Since the last letter was written a case has become known which would not have been referred to at all in this correspondence except for the strictures of the *Record*, but which furnishes a somewhat striking commentary on some of the statements made in that letter A Fellow of the Academy having done some action (which need not be mentioned here) believed to be worthy of censure a member of the Council, a gentleman of refinement and great eminence in the profession, was asked to remonstrate with him in regard to the supposed offence, but when the latter attempted to do this, on more than one occasion, if the writer is correctly informed, he was coolly greeted with the polite advice to "go to h—ll" Now what can the Academy do about it? In former times the course to be pursued would have been sufficiently plain, and there would have been no hesitation in taking suitable action

---

INJUSTICE TO DR BARNES

To the Editor of the Journal

Dear Sir —My attention was to day called to an editorial in your journal of the 10th inst, under the heading of "Injustice to Fancourt Barnes," which does me great injustice I therefore request that you give this note equal prominence in an early issue

My name having been misprinted "Cutler" in the review, and the fact that Barnes's book contains a greater number of words than mine, are claimed as proofs that the reviewer was not familiar with either book A careful comparison shows that Dr Barnes copied *all of my words and definitions*, with one or two exceptions Most of the errors copied could not have been made so continuously and peculiarly alike had not the printer of Barnes's book used my printed page as part of his copy Such uniform, exact and constant repetition of definitions punctuation, etc, in their sequence throughout several thousand words could have occurred in no other way Barnes's book contains very few strictly *medical* terms not found in mine The mass of his padding consists of chemical, botanical and pharmaceutical terms to be found in all the general dictionaries A prominent journal, in reviewing Barnes's book, said that his additions were "*not particularly or at all scientific*" In many cases, after giving certain of my words and definitions, he has repeated the same word and given another combination of definitions, evidently taken from the common dictionaries The remark that "Barnes's dictionary contains errors in words that are not in Cutter's dictionary at all, and other errors in words that are correctly given by Cutter," is very true, and many of them present evidence that Barnes was not capable of writing an original work of the kind

I assert that no "injustice in regard to this matter has been done to Dr Barnes in this country," and that this claim of piracy is not a fable, neither is Dr Barnes's book superior to mine, as a comparison of the two books will show any person capable of judging which is most reliable I cannot expect to be afforded the space for citing the many facts at my disposal in proof

In the concluding paragraph of your editorial it is stated that the firm who imported Barnes's book voluntarily, and without investigation, returned their importation to England This suppression of Barnes's book did not take place until after a considerable correspondence, and a suit was about to be commenced My counsel had prepared overwhelming proof that Barnes had pirated the whole of my book I wrote to this effect to all the prominent British journals of medicine, but, with one exception, they refused to publish So much for simple justice to one not in the country to defend himself

My dictionary was an original work, exactly as claimed in the preface, and was the product of years of hard study To steal such a work is to inflict a much greater injury than the reprinting of an essay or work of that nature I should not have even protested had it been simply reprinted in England as "Cutter's Dictionary" I have no quarrel with any one, but I shall certainly protect my rights

Respectfully, G R Cutter

52 Bedford Ave, Brooklyn, N Y, April 17, 1886

THE ADDRESS IN MEDICINE BEFORE THE BRITISH ASSOCIATION

To the Editor of the Journal

Dear Sir —I hope you will not take it amiss if an humble reader of The Journal dissents from your editorial statement in connection with the selection of Dr J S Billings, of the Army, "to deliver the address in Medicine before the next meeting of the British Medical Association in place of the late Professor Austin Flint," that "the well known ability of Dr Billings and his familiarity with general medical literature, makes the selection one *eminently* proper" The ability of Dr Billings is, of course, well known, and his familiarity with general medical literature is unquestioned, but a great many have presumed to doubt whether the selection of a bibliothecary, however noted and conspicuous, who has often disclaimed any practical acquaintance with disease, who has probably not written a prescription for twenty years, and who would not presume to undertake the charge of a sick person, is one "eminently proper," while such famous pathologists live as Henry I Bowditch, Francis Minot, Albert L Loomis, Henry W Draper, Francis Delafield, William Pepper, James Tyson, James T Whittaker, Wm H Welch, Palmer Howard, N S Davis, and a dozen more If the British Medical Association does not know of these men, the British Medical Association has much to learn

PHYSICIAN

CAUTERIZATION OF THE CERVIX UTERI, A REMEDY FOR THE OBSTINATE VOMITING OF PREGNANCY

TO THE EDITOR OF THE JOURNAL

Dear Sir —In THE JOURNAL of to day, April 24, is a letter from Dr M O Jones, of this city, taking Dr Jos Taber Johnson, of Washington, D C, to task for forgetting to credit the writer with originating the treatment by nitrate of silver of the vomiting of pregnancy It seems Dr Jones suggested this method to Dr Sims in 1872 Dr Sims regarded it as original, wrote in the *Lancet* concerning it soon afterwards, and gave it the stamp of advanced knowledge It never struck me that way by reason of the following quotations In Bennet's work on the Uterus,[1] he says

"The discovery of the frequent existence of inflammation, with or without ulceration, during pregnancy, is one of vital importance, inasmuch as it affords a key to most of the accidents and morbid symptoms of the pregnant period It appears to have escaped the notice of all the Continental writers —such as Lisfranc, Duparcque, etc —who have recently paid attention to uterine diseases, and no English work or publication on midwifery or the diseases of women contains *the most distant allusion* even to the possible existence of such disease during the pregnant state " But twenty four years before this date, in 1840, Bennet says that M Boys de Loury called his attention to it And he adds ' I believe that I am authorized to attribute to M Boys de Loury this important discovery, as I certainly never heard any other practitioner before him allude in the most cursory mannner to the subject, and I *am not acquainted even with a hint respecting it in* the entire range of medical literature M Boys de Loury's discovery was briefly noticed in 1843, by one of his house physicians, M H Costilhes, in a thesis sustained before the Paris Faculty of Medicine M Costilhes's cursory notice was the only one that had appeared of this pathological fact in any language when the first edition of the present work was published Since that time I have devoted great attention to the elucidation of *inflammatory disease of the cervix* and to chronic metritis generally *during pregnancy*, and have ascertained that they are of frequent occurrence, that they are the *keystone* to the diseases of the *pregnant state*, and the most *general cause* of laborious pregnancy, *obstinate sickness*, moles, abortions, miscarriages, and hæmorrhage The results of my researches on these points as contained in the present chapter, were read before the physiological Section of the British Association at Southampton on September 11 1846

"The influence of *inflammation of the uterine neck*,[*] as of the uterus generally, on the *functions of digestion*, is *perhaps the most marked*, the *most important*, and *the most common of all the sympathetic relations* which we have to study, nor can we be surprised, when we consider how intimate the connection is between the *uterus* and the *stomach* in the *physiological state* *As an illustration of this* physiological connection, I would again recall to mind *the sickness* that generally accompanies the increased vital activity of the *uterus* during the *first months of pregnancy* " (Page 104)

"In some cases vomiting constantly takes place after food, and even at other times When this is the case, the body of the uterus is often implicated, *and all remedies may fail permanently to arrest the vomiting until the uterine disease be subdued* " (Page 107)

"The *dyspeptic symptoms* observed in obstinate leucorrhœa are nearly invariably the result of the *sympathetic reaction* on the *stomach* of the inflammatory disease of the uterine neck " (p 103) These quotations are from the chapter dealing with married women Now let us see what Bennet says of the treatment

"The only caustic that can be used with advantage *in inflammation of the cervix without ulceration or hypertrophy is the nitrate of silver*, *which acts*, however, more as an *astringent than as a caustic*" (p 237)

"The *existence of pregnancy*, so far from being an obstacle to the local treatment of inflammatory and ulcerative *disease* of the *uterine neck*, is a *strong reason why* it should be adopted and carried out without delay " "During the first six or seven months, it is the *absolute duty* of the medical attendant to treat the disease, as by curing the ulceration, or even by modifying its irritability, not only is much suffering spared to the patient, but abortion is often prevented The local treatment must consist in astringent injections and cauterization with nitrate of silver, " (p 296)

Again "This has emboldened me to apply them (*the above remedies*) in the early stages of pregnancy in some females in whom repeated abortions had occurred, with a *view to diminish congestion* and to *carry on gestation* I have done this repeatedly with success " (p 297)

It is perfectly clear that Bennet treated the congested cervix of the pregnant female to overcome the sympathetic irregularities of the digestive organs, and to use his own language, "I have devoted great attention to the elucidation of inflammatory disease of the cervix and to chronic metritis generally *during pregnancy*, and have ascertained that they are of frequent occurrence, that they are the *keystone* to the diseases of the pregnant state, *and the most general cause of laborious pregnancy, obstinate sickness*," etc Who can fail to see that the pathology of this matter belongs to M Boys de Loury, stated by him in 1840, and that Bennet laid down the treatment in 1846 at Southampton, twenty six years before Dr Jones presented it to Dr Sims at Chicago as a new idea Very respectfully,

R STANSBURY SUTTON M D

419 Penn Ave , Pittsburgh Pa

---

[1] Sixth edition 1864 pp 144 145

[*] All italics are mine

BOOK REVIEWS

The Essentials of Histology, Descriptive and Practical, for the Use of Students By E A Schafer, F R S, Professor of Physiology, University College, London, etc 8vo Philadelphia Lea Brothers & Co 1885

The author of this book is well known, and is recognized as a writer of authority He has attempted in this volume to supply the student with directions for the microscopical examination of the tissues, at the same time describing the essential facts of the science so as to make a complete elementary text-book on histology

Each chapter is prefaced by a few paragraphs in which directions are given as to how specimens must be prepared for examination These are detailed and will enable a student readily to demonstrate all that is essential in the histology of the various tissues and organs The book is most excellently illustrated It will undoubtedly be found very useful by many teachers and students in college, as well as by those who are working by themselves and to whom the practical suggestions of the book will be particularly useful Dr Schafer is so well known to pathologists and students of histology for his exceedingly careful work and natural abilities, that it seems unnecessary to give any detailed account of his work

An Atlas of Clinical Microscopy By Alexander Peyer, M D Translated by A C Girard, M D, Assistant Surgeon U S Army First American from second German edition, with additions Ninety Plates, with 103 Illustrations, Chromo-Lithographs New York D Appleton & Co 1886

This book is handsomely illustrated by well drawn original figures It covers a field that has not been perfectly covered before The aim of the work is to furnish illustrations of the objects seen in the various secretions, excretions and exudates commonly examined for clinical purposes The text is brief and will serve chiefly as a guide to rather than as a full explanation of the objects illustrated The scope of the work can be better comprehended by quoting the titles of its main divisions 1 Microscopic Examination of the Blood, 2 Of the Milk, 3 Of the Urine, 4 Of the Sputum, 5 Of the Stool, 6 Of the Contents of the Stomach, 7 Of Fluid from Abdominal Tumors, 8 Of Secretions from the Female Sexual Organs, 9 Various Micro organisms Provoking Disease Each subject is considered in detail For example, from urinary sediments the various forms of crystalline bodies are shown, blood, pus, tube casts, mucus, all forms of cylinder or tube casts, epithelium, spermatozoa, and so forth The drawings, with the exception of only two plates, are original with the author A reference book of this kind has long been needed by students of clinical medicine, and this one will certainly be found useful It is fortunate that the translation has been made by one who is familiar with the subject

ASSOCIATION ITEMS

AMERICAN MEDICAL ASSOCIATION

The Thirty-seventh Annual Session will be held in St Louis, Mo, on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A M

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies

SECTIONS

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections "—*By-Laws*, Art 11, Sec 4

Practice of Medicine, Materia, Medica and Physiology—Dr J T Whittaker, Cincinnati, Ohio, *Chairman*, Dr B L Coleman, Lexington, Ky, *Secretary*

Obstetrics and Diseases of Women and Children—Dr S C Gordon, Portland, Me, *Chairman*, Dr J F Y Paine, Galveston, Texas *Secretary*

Surgery and Anatomy—Dr Nicholas Senn, Milwaukee, Wis, *Chairman*, Dr H H Mudd, St Louis, Mo, *Secretary*

State Medicine—Dr John H Rauch, Springfield, Ill, *Chairman*, Dr F E Daniel, Austin, Texas, *Sec'y*

Ophthalmology, Otology, Laryngology—Dr Eugene Smith, Detroit, Mich, *Chairman*, Dr J F Fulton, St Paul, Minn, *Secretary*

Diseases of Children—Dr W D Haggard, Nashville, Tenn, *Chairman*, Dr W B Lawrence, Batesville, Ark, *Secretary*

Oral and Dental Surgery—Dr John S Marshall, Chicago Ill, *Chairman*, Dr A E Baldwin, Chicago, Ill, *Secretary*

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the

Chairman of the Committee of Arrangements, at least one month before the meeting —*By Laws*

Committee of Arrangements—Dr Le Grand Atwood, St Louis, Missouri, *Chairman*

AMENDMENTS TO BY-LAWS

By Dr Foster Pratt, Mich—Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee

By Dr I N Quimby, N J—Create a new Section, to be known as the Section on Medical Jurisprudence WM B ATKINSON, M D, *Permanent Secretary*

1400 Pine St, S W cor Broad, Philadelphia

PROGRAMME OF SURGICAL SECTION —*Tuesday* — Dr William M Mastin, of Mobile, Ala, "Venous Blood Tumors of the Cranium in Communication with the Intra Cranial Venous Circulation, especially the Sinuses of the Dura Mater", Prof Moses Gunn of Chicago, "On the Value of an Attempt at Enucleation in a Neuroma which seems to demand Resection of the Nerve, illustrated by a case", Dr B A Watson, of Jersey City, "Fibre or Spindle-celled Sarcomatous Tumors, with the report of a case and presentation of the specimen", Dr Joseph Ranssohoff, of Cincinnati, "Treatment of Thoracic Aneurisms by Introduction of Wire, with a case", Professor E Andrews, of Chicago, "Incisions and Drainage of Lumbar Abscesses"

Wednesday—Prof Christian Fenger, of Chicago, "Osteoplastic Resection of the Foot, Excision of the Heel", Dr W T Belfield, of Chicago, "Digital Exploration of the Bladder, with report of twelve cases including five Vesical Tumors and two cases of Prostatotomy", Dr Robert Newman, of New York, "Galvano Caustic in Diseases of the Prostrate Bladder and Urethra", Prof E E Glover, of Terre Haute, Ind, "The Treatment of Anal Fistula associated with Phthisis", Dr J T Jelks, of Hot Springs, Ark, "Stricture of the Urethra"

Thursday —Dr Theo A McGraw, of Detroit, "Experimental Researches with reference to Sutures of the Intestines", Prof S McF Gaston, of Atlanta, "Surgical Relations of the Ilio Cæcal Region", Dr Henry H Smith, of Philadelphia, "What is the Proper Treatment of Penetrating Wounds of the Abdomen," being the opening remarks on the discussion of the subject, with discussion by Dr B A Watson, of Jersey City, Dr J McF Gaston, of Atlanta, Dr E H Gregory, of St Louis, and Dr H H Mudd, of St Louis, Dr Henry O Marcy, of Boston, "Hernia and the Best Method of Cure", Dr R Harvey Reed, of Mansfield, Ohio, "Some of the Complications in Strangulated Hernia"

RAILWAY CERTIFICATES TO THE ASSOCIATION MEETING—SPECIAL NOTICE —To delegates and others who will attend the meeting of the American Medical Association, St Louis, May 4 to 8 Parties located east of Buffalo, Niagara Falls, Pittsburgh and Parkersburg, will apply by mail to Secretary of Trunk Line Committee, 346 Broadway, N Y, for certificates Parties west of points named above and east of the Mississippi River, and north of the Ohio River, will apply to Geo H Daniels, Commissioner C P C, Chicago, Ill, for certificates Parties south of the Ohio River, and east of the Mississippi River, will apply to M Slaughter, Commissioner, Richmond, Va Parties from Missouri River points, and from Chicago, will apply to E P Wilson, Arbitrator, Chicago Points in the west and local points on the lines centering in St Louis, will be arranged for, by agent at starting point or upon arrival here

Delegates in making application to the above named persons for a certificate, must not forget to enclose a two cent stamp to pay postage on the return letter enclosing to them the certificate This must be done to insure the certificate being sent Any delegate who fails, after making every effort, to get a certificate in due form, will take a receipt from the ticket agent at the point from which he starts, for amount of full fare paid by him, coming to the meeting, and in this receipt be particular to have named the form and number of ticket, and the road over which he will come If not directly on one of the lines entering into this arrangement of reduced rates, pay your fare only to it, and then pay your full fare from that point, securing your certificate or receipt as above directed State, County or City Societies can apply for the number of certificates they may wish, and have the number wanted sent in one envelope instead of applying individually

Round trip tickets from Chicago, Ill, also from New York (339 Broadway), Richmond, Va, and Washington City, D C, by Chesapeake & Ohio Railroad, from Philadelphia via Penn Central and B & O

Members of the American Medical Association, or members of any medical societies, who may see the above, will please report it to individual members, or their societies, and try to get a notice of same in their city or county newspaper

R M JORDAN, M D,
Chairman Transportation Committee

St Louis Mo

RAILWAY FACILITIES TO THE ASSOCIATION MEETING —The regular through trains of the Illinois Central Railroad from Chicago to St Louis will afford excellent accommodations for delegates who wish to attend the meeting of the American Medical Association at St Louis the first week in May The night express, with Pullman sleeping cars, leaves Chicago at 8 30 P M, and arrives in St Louis at 7 A M The rates are $7 50

The rates on the Baltimore and Ohio Railway for those coming from the East and South east are full fare coming and one-third fare returning

RAILROAD FARES —The Boston & Albany Railroad will, upon application at their office, 232 Washington St, Boston, sell to delegates and *their families* tickets to St Louis and return for one and one third fares for round trip A parlor car, to run through from Boston to St Louis, will be attached to the train leaving Boston at 3 P M, May 1st

MISCELLANEOUS

In Memoriam—Austin Flint, M. D., LL. D.—At a regular meeting of the New York County Medical Association, held April 19, 1886, the following was unanimously adopted:

Whereas, It has pleased God, in the exercise of His Divine Will, to remove from the sphere of his usefulness our esteemed co-worker, Austin Flint, M. D., LL. D., revered abroad, but best loved at home; and

Whereas, It is but proper that we take to ourselves that consolation which comes from the rehearsal of his many virtues; Therefore, be it

Resolved, That as an Association to whom he gave his latest work, and ever his cherished counsel, we add our own to the many other testimonials of his worth;

Resolved, That we recognize in him an author of marvelous industry, who has made his impress on the medical thought of the age, modest and just, but still a master of deliberate statement, conscientious in the recognition of the labors of others, and despising not the humblest contributor to that science to which he devoted his life; a practitioner of his art without device, zealous for the dignity of his calling, suave, considerate and gentle; one who worthily gained the gratitude of his patients and will ever live in their most blessed memories; a consultant who dispensed rich stores of knowledge, ever judging kindly, more careful of the rights of others than his own, cheery and abounding in charity for his brethren; a teacher, hand-in-hand with his pupils, analytical, pains-taking, less eager for glory than exactness, ever approachable and always ready with a reason for the faith that was in him; and a man in all the walks of life blameless, "who hath borne his faculties so meek" and "hath been so clear in his great office," and who, laboring to the last, hath fallen in sight of the promised land of his cherished hopes.

And be it also *Resolved*, That we tender to those of his own household and kinship our heartfelt sympathies, knowing well that to his son, his life was a pæan of touching affection, and to his widow one long benediction.

John Shrady, M. D.
E. S. F. Arnold, M. D. } *Committee.*
J. W. S. Gouley, M. D.

A Sanitary Convention at Kalamazoo, Michigan, under the auspices of the State Board of Health, will be held on Tuesday and Wednesday, June 1 and 2, 1886. There will be sessions the first day at 2.00 P. M. and 7.30 P. M.; on the second day at 9 A. M., 2 P. M., and 7.30 P. M.

At each session of the Convention there will be addresses or papers on subjects of general interest pertaining to public health, each paper to be followed by a discussion of the subject treated.

The admission to all sessions of this Convention will be free, and the ladies are cordially invited. The invitation is especially extended to health officers to be present and take part in the discussions. The objects of the Convention are the presentation of facts, the comparison of views, and the discussion of methods relating to the prevention of sickness and deaths, and the improvement of the conditions of living.

Among the subjects which it is expected will be presented and discussed are the following: 1. History of Investigations Concerning Micro-organisms, and the germ theory of disease. 2. Personal duty touching prevention of spreading communicable disease: (*a*) From the standpoint of the lawyer; (*b*) From the standpoint of the clergyman; (*c*) From the standpoint of the health officer. 3. Disinfection. 4. Sanitary condition of public buildings in Kalamazoo. 5. The diseases incident to poverty. 6. Healthy Homes. 7. The need of a public hospital in Kalamazoo. For further information address H. B. Hemenway, M. D., or Rev. M. W. Haynes, Secretaries, Kalamazoo, Michigan.

Medical Missions.—Mr. T. Fisher Unwin is about to publish a work entitled "Medical Missions: their Place and Power." It is written by the Rev. John Lowe, the Secretary of the Edinburgh Medical Missionary Society, and will contain an introduction by Sir William Muir. It will also be further embellished with a medallion portrait of Dr. John Abercrombie, the founder of the above Society.—*Lancet*, April 17, 1886.

Medicines for Internal and External Use.—By a notice recently issued in the District of Potsdam in Prussia, it is ordered that the directions to be affixed to medicines for internal use shall be written on white paper, and to those for external use on bright red paper, on which writing with black ink is easily legible. The latter must also be distinctly marked "external." An order regulating the color of the paper to be used has existed since 1825, but its provisions have gradually been transgressed; hence the new regulations. Such regulations as that to which allusion is now made, are scarcely calculated to obviate the danger of mishap. Difference in the color of paper is useful, so far as it goes; but it appeals to the sense of sight alone, and, as we have already urged, it should be substituted or supplemented by an appeal to the sense of touch, by a difference in the configuration of the bottles used respectively for "internal" and "external" medicaments.—*British Medical Journal*, April 17, 1886.

Death of Dr. Hiram Nance.—Dr. Hiram Nance, of Kewanee, Ill., died at his residence in that place on April 6. He was born in Floyd Co., Ind., in 1822. He graduated at the Missouri Medical College in 1845. He was one of the founders of the Military Tract Medical Society, was one of its first Presidents, and a member at the time of his death, was a member of the Illinois State Medical Society, and for twenty-five years a member of the American Medical Association. He was known throughout Northern Illinois as a leading practitioner, a kind physician, and a man of high personal worth and attainments.

The Grocers' Company and Biological Science —A city company officially represented at a lecture on Physiology is surely a sign of the times So, too, is a lecture, not on the art of dining, but on a novel and somewhat abstruse physiological research, conducted with funds provided by the company The audience which gathered to hear Dr Wooldridge's lecture at the University of London, on April 13, contained this unusual element, for in the seat of honor beside the vice chancellor, were the master and certain members of the Court of the Grocers' Company, and the furs of city magnates were mingled with the plainer robes of the leaders of the medical world The occasion, therefore, had a special character on this account, but the story which Dr Wooldridge had to tell had an interest of its own, from the physiological point of view, and may come to have important practical applications in pathology The peculiar substance which he has isolated from the blood produces clotting within the vessels, with the most extraordinary rapidity, and it has already been found to be notably increased in quantity under certain diseased conditions Sir James Paget, in a few well chosen phrases, after the lecture, congratulated the Grocers' Company on the public spirit which they had shown in expending a thousand a year in the endowment of research No immediate practical application of Dr Wooldridge's observations was perhaps possible, but, said Sir James, when a scientific research comes to have a practical application, it ceases to stand in need of the generosity even of a rich city company —*Brit Med Jour*, April 17, 1886

Mr T Pridgin Teale on Fireplace Construction —The subject of firegrates may seem one somewhat alien to the surgical mind, but if the studies of Mr Teale lead to less poisoning of the atmosphere by the products of coal consumption, and to greater warmth of our houses in inclement weather like this, he will have earned the gratitude of the public and of invalids, and if he reduces the cost of coals by one-fourth, he will deserve the thanks of all who in these hard times have difficulty in making ends meet We shall best describe Mr Teale's views as to the principles of domestic fireplace construction by quoting his rules, which he states with great brevity, and which are as follows 1 As little iron as possible is to be used 2 The back and sides of the fireplace should be of brick or fire-brick 3 The firebrick back should lean over the fire, and not lean away from it 4 The bottom of the fire, or grating, should be deep from before backwards, probably not less than nine inches for a small room, or more than eleven inches for a large one 5 The sides or coverings of the fireplace should incline to one another, as the sides of an equilateral triangle 6 The lean over at the back should be at an angle of 70° 7 The shape of the grate should be based on a square described within an equilateral triangle, the size to vary in constant proportion to the side of the square 8 The slits in the grating, or grid, should be narrow, perhaps a quarter of an inch for a sitting room grate and good coal, and three eighths of an inch for a kitchen grate and bad coal When the slits are larger they allow cinders to fall through—in other words, waste 9 The front bars should be vertical, that ashes may not lodge and look untidy, narrow (perhaps a quarter of an inch in thickness), so as not to obstruct heat, and close together (perhaps three quarters of an inch apart), so as to prevent coal and cinders from falling on the hearth 10 There should be a rim an inch or an inch and a half in depth round the lower insertion of the vertical bars 11 The chamber under the fire should be closed by a shield or economiser 12 Whenever a fireplace is constructed on these principles, it must be remembered that a greater body of heat is accumulated about the hearth than in ordinary fireplaces, and corresponding care taken by an ashpan against heating wooden beams, etc This ash pan should have a double bottom, the space between the two plates being filled with artificial asbestos, slag-wood two inches in thickness 13 A fireplace on this construction must not be put in a party wall where there is no projecting chimney breast, lest the heated back should endanger woodwork in a room at the other side The benefits aimed at by Mr Teale are 1 Economy of fuel 2 Reduction of soot 3 Reduction of ashpit refuse Mr Teale astonished his audience by showing two small glass bottles containing the small ash residue of the coal burnt in his fireplaces, which consisted not of cinders, but very fine powder As to the saving of coal, the general manager of the Leeds Infirmary estimates that in that institution it amounts to a sixth or 100 tons in the year We have only space left to say that from some observation of Mr Teale's own fireplaces, and some experience of them, we believe he has got hold of the right principles and in a large measure of the details He was careful with the true candor of a scientific man to show how curiously his discoveries were anticipated last century by that remarkable man Count Rumford, who did study medicine, but, unlike Syme and Teale, drifted into other pursuits and was lost to the medical art —*Lancet*, February 13, 1886

Sanitary Inspection in Chicago —On April 9 Chief Inspector Genung issued the following order to the City inspectors regarding the inspection of tenements, and house-to house inspection of all the tenant or rental class of dwellings throughout the city

"Every inspection must include not only a thorough examination of all the conditions within the houses, but also the condition of the privies, cesspools, yard-areas, and spaces under the buildings and sidewalks, in fact, every part of any premises where it is possible for any thing of an unsanitary character to exist It is not enough that you simply point out these unhealthful conditions, but you must also cause them to be remedied at the earliest possible moment that the law will permit, as in the prompt application of these remedies lies the whole value of your labors Your work for the last year exceeded the previous one, as did all its predecessors, therefore, the present year should be no exception to the past, and must surpass all others in quantity and quality of work performed This can be readily accomplished if each inspector will do his full duty, as nearly all of you are well acquainted with all its requirements Neglect of duty and incompetency will not be tolerated, and while task-work is not demanded, yet, a reasonable amount of efficient work will be required from each of you It is wholly unnecessary to talk further upon this subject, as each of you knows precisely what your duties are, which, if well performed, will give us the best record in this kind of work on this continent" —*Sanitary News*, April 17, 1886

The Association of Surgeons of the Pennsylvania Company will hold its seventh annual meeting in Mansfield, Ohio, on Tuesday, May 18, 1886, commencing at 8 30 A M, standard time Several interesting papers are announced

The Sanitary Convention, announced last week as a "National Sanitary Convention," to be held in Philadelphia in May, will be held under the auspices of the Pennsylvania State Board of Health, and the word *National* was inadvertently printed on the circular

Alum in Baking Powders —In the official report of the Minnesota State board of health, for March 1886, is a report by Professor J A Dodge, of the University of Minnesota, of the analysis of seven samples of baking powder, the computation being made to anhydrous or "burnt" alum, without the water of crystallization Of the seven samples all contained alum, the amount ranging from 33 to 65 per cent Several analyses of "Snow Flake" and "Royal" baking powders have shown them to be entirely free from alum Prof J S Wood (Sixth Report Mass State Board of Health) says "The competition existing among manufactures of the better brands of baking powders, insures purity to a considerable extent, but the numerous cheap articles, the sale of which is promoted by the presentation of cups and saucers, tin spoons and other table ware, chromos, etc, are always suspicious and should be avoided on general principles The cheaper baking powders are more likely to contain alum than cream of tartar The latter substance is acid salt, which is most commonly used in the manufacture of the better brands The alum powders are condemned as unwholesome since the weight of evidence on the subject is to the effect that alum is not a proper substance to be used in baking bread"

Professor E G Janeway has been appointed to the Chair occupied by the late Dr Flint No more fitting appointment could have been made He will prove a most able successor to an extraordinarily able teacher

M Chevreul, "Doyen des Etudiants," the illustrious chemist and Academician, and the various learned societies of France propose to have a public demonstration in honor of the event

More Patients for Pasteur —The towns of Pullman and Kensington have sent three or four patients to Pasteur for prophylactic treatment against hydrophobia It was not entirely certain that the dog which bit the persons was mad, and all inquiries as to to the madness have been cut short by the shooting of the dog

Professor Ollier —A cable report announces the death of Professor Ollier, the distinguished surgeon, of Lyons The name is incorrectly spelled in the report, and it is sincerely to be hoped that the report is untrue

The Hydrophobia Commission —Sir James Paget, Drs Burdon Sanderson and T Lauder Brunton, and Sir Henry Roscoe, M P, will serve on the committee to inquire into Pasteur's method of innoculation for hydrophobia

The Academy of Medicine of Rome will send a delegate to Paris, to study Pasteur's method, of innoculation, and it is said that the German Government will send Drs Koch and Virchow for the same purpose Archduke Charles Theodore, of Bavaria, a practising physician will also go to Paris, to study Pasteur's method

Dr Edward Fournie, the distinguished laryngologist and aurist, and for a long time Director of the National Asylum for the Deaf and Dumb of France, and Editor of the *Revue Medicale*, died on March 24, aged fifty three years

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM APRIL 17 1886 TO APRIL 23 1886

Major M K Taylor, Surgeon, granted one month's leave of absence, on surgeon's certificate of disability, with permission to leave the limits of the Department (S O 39, Dept Mo, April 16, 1886)

Capt Wm W Gray, Asst Surgeon, ordered to Ft Maginnis, M T

Capt Ezra Woodruff, Asst Surgeon, ordered to Ft Missoula, M T

First Lieut Reuben L Robertson, Asst Surgeon, ordered for temporary duty at Ft Snelling, Minn (S O 33, Dept East, April 15, 1886)

First Lieut Philip G Wales, Asst Surgeon, granted leave of absence for one month (S O 56, Dept Columbia, April 8, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING APRIL 24 1886

Lovering P A,, Past Asst Surgeon, ordered to Navy Yard New York

Biddle, Clement, P A Surgeon, detached from "Monocacy," ordered home and wait orders

Ames, H L, P A Surgeon, detached from Navy Yard, New York, and ordered to "Monocacy"

Crawford, M H, P A Surgeon, ordered to Naval Hospital at Washington

Hord, W I, Medical Director, U S N, and Medical Inspector J C Spear, U S, N, delegates to the meeting of the American Medical Association to be held at St Louis on May 5, 1886

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED APRIL 24 1886

Long, W H, Surgeon, granted leave of absence for seven days April 24, 1886

Banks, C L, Passed Asst Surgeon, granted leave of absence for ten days April 20 1886

Armstrong S T, Passed Asst Surgeon, granted leave of absence for five days April 20, 1886

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

Vol. VI. CHICAGO, MAY 8, 1886. No. 19.

THE PRESIDENT'S ADDRESS.

Delivered before the Thirty-Seventh Annual Meeting of the American Medical Association, Tuesday, May 4, 1886.

BY WILLIAM BRODIE, M.D.,

OF DETROIT, MICH.

GENTLEMEN OF THE AMERICAN MEDICAL ASSOCIATION.—With great pleasure I congratulate you on your coming together to renew old friendships, to make further acquaintances, and to add to the general storehouse of medical information, thus demonstrating to our fellow-citizens that the medical profession are not only interested in its own welfare, but also in theirs.

We have reason to be thankful to the Supreme Ruler of the universe that no epidemic disease has devastated our land, and, with but few local exceptions, that a general state of health has existed. We have also to be thankful that so many have been spared to again meet in council and demonstrate our vitality as an association. Yet with all these blessings showered upon us, Death has been within our ranks, and some of our honored ones have yielded to his sceptre. It is, therefore, with sadness that I refer to the decease of Drs. W. K. Bowling, of Nashville, Tenn., John L. Atlee, of Lancaster, Penn., and Austin Flint, Sen., of New York City, during the past year, ex-Presidents of this Association.

Dr. Bowling first identified himself with the Association in 1853, and from that time to his death was one of its firmest friends. In 1851 he founded the "Nashville Journal of Medicine and Surgery," which he sustained for a quarter of a century. The same year he assisted in founding the Medical Department of the University of Nashville, and was elected Professor of Practice and Institutes of Medicine. Deeply interested in public education, in 1853 he delivered the oration upon the occasion of laying the corner stone of the first public school building in Nashville. In 1856 he was elected Third Vice President of this Association. In 1861, he was sent as peace ambassador from the State of Tennessee to the Governor and Legislature of Kentucky. In 1867 he was elected First Vice President, in 1873, President of the Association of Medical Editors, and in 1874, President of the American Medical Association.

His contributions to medical literature are to be found in the journal of which he was editor. He was never negative, but always positive in the views and opinions he advanced. In 1876, he was appointed by his State a member of the International Medical Congress of 1876, which met in Philadelphia.

As an editor, it was said of him, he never kept his printer waiting for copy or money, and the greatest living medical critic said of him in his journal: "A man of genius as well as learning, of the true poetic temperament, he has written some of the most brilliant articles in our medical annals."

He was a scholarly man and a beloved physician. As a teacher he was worshipped by his classes, and when declining years warned him of his approaching end, he retired to his summer home, Monteagle, in the Cumberland mountains, for rest and recreation. But so devoted was he to his profession that the sufferings of a little child appealed to his benevolent heart and was his last patient. He died as he had lived, a noble, generous hearted man, loving his profession and his God.

John Light Atlee. We find his name first registered in 1848, as a delegate from the Medical Society of the State of Pennsylvania. From that time to his elevation as president, in 1882, he was in almost constant attendance upon its meetings and was always one of its firmest supporters.

The code of ethics was to him as an injunction from the *Most High*, and he considered this Association as the embodiment of perfection.

In 1820, at the age of 21 years, he commenced the practice of medicine in his native town, where he resided until his death, October, 1885.

Surgery was his element, and in this department of medicine he achieved his reputation. He was prominent as one of the pioneers in this country for the successful operation of ovariotomy. This alone entitles his memory to a grateful recognition by the American medical profession. My first acquaintance with him began in 1856, when he took an active interest as a delegate from his native city. He was a tall, slender looking man, with a clear and expressive countenance indicative of firmness and confidence in the truth of his convictions, ardent in the pursuit of knowledge, he was neither obsequious to men nor submissive to opinions which he thought hostile to the best interests of his profession. He was opposed to anything that savored of quackery, and believed that medicine was a science, and based upon fundamental principles.

He was a physician in the widest sense of the term, taking an interest in every department

He had the confidence of the profession in his home and the State of Pennsylvania, as evinced by his large consulting practice

He left a record of 2,125 important surgical operasions, and attended 3,264 cases of parturition, all independent of hospital or college connection, and were exclusively private

His practice embraced a period of 65 years, and continued till a few days before his death Though advanced to his 86th year, he retained the vigor of manhood to such a remarkable degree as to appear to strangers as a man of only threescore years and ten Of him it can be said, correct business habits enabled him to accumulate a handsome fortune At the same time, he did a large amount of unrequited and benevolent labor Not unmindful of his honor as a man, he never sought to enhance his own popularity by depreciating that remuneration for services o which every honorable physician is justly entitled

Dr Atlee was a constant and devoted member of the Episcopal church, and adorned the doctrine he professed with reverent acknowledgment and an abiding faith He came to his "grave in full age, like as a shock of corn cometh in its season "

Austin Flint, Sen , died March 13, 1886, at his residence in New York City, of cerebral apoplexy He was one of the founders of the Association, being present as a delegate from the Erie County Medical Society of New York, at the initial meeting in 1847 He was then appointed one of the committee "Upon a uniform and elevated standard of the requirements for the Degree of Doctor of Medicine by all the Medical Schools of the United States" This report was exhaustive on the subject, and the resolutions appended, with only one slight amendment, were unanimously adopted, and laid the foundation of the advanced requirements of the present day

During his membership, he gave several valuable papers to the Association Among the most prominent were those on Practical Medicine, Materia Medica and Physiology, Cerebral Symptoms in Heart Disease, Clinical Study of Heart Sounds, Pathology of Diabetes, Typhoid Fever, and Variations in Pitch in Percussion His Address on Medicine and Medical Progress in the United States, before the International Medical Congress of 1876, in Philadelphia, and his address as President of the Association, in 1884, were especially able In the latter address he presented the suggestion of inviting the Ninth International Medical Congress to meet in this country, at its Capitol, Washington

From his youth up, Dr Flint was an indefatigable laborer in the field of medical science His reputation as a teacher and author was world-wide Conscientious in his relation to the profession he so fondly loved, and to the public, his recognition of the code of ethics, as exemplifying the honorable relations of the profession towards one another and to their constituents, elevated him to the position of the true gentleman

In his death we have lost a bright star, and the International Medical Congress, for which he was selected (I may say unanimously) as its presiding officer, must mourn his sudden demise Few men have been so justly eminent and yet so widely beloved and admired His works are the expression of his experience and observation, and have been received by his professional brethren, not only at home, but abroad, as standard authority The British Medical Association was honored by his acceptance of their invitation to deliver the address on *Medicine* at their next meeting, thus demonstrating the appreciation with which he was held abroad With such a reputation as he had achieved, it may well be said, "To die is noble"

The past generation of the great men of our profession are fast fading away The seats they have so honorably filled in this Association are becoming vacant—may we indulge the hope, to be again filled by those of the present, who will so well represent their honor and professional integrity, that future generations may say of them, their mantle has fallen upon deserving merit

It is my purpose in addressing you at this time to confine myself chiefly to matters pertaining to the progress, interest and welfare of this Association Although I may seem to tread in the footsteps of my predecessor, Dr Flint, in his address at Washington, and the subject may seem familiar, yet I have an entirely different object in view[1]

When the first National meeting of the profession, under the call of the New York State Medical Society, was held in the city of New York, May 5, 1846, Dr I Hays, of Philadelphia, moved, and it was resolved, "That it is expedient for the medical profession of the United States to institute a National Medical Association for the protection of their interests, for the maintenance of their honor and respectability, for the advancement of their knowledge and the extension of their usefulness" Upon this broad foundation has arisen the largest representative medical association known in history

At this gathering 120 medical men met in consultation They fully endorsed the resolutions presented by Dr Hays, they also recognized the necessity of a united profession, and in order to attain this great end they resolved that a committee of three members should be appointed to report a plan of organization at a future meeting to be held in Philadelphia the first Tuesday in May, 1847

They also recognized that a uniform and elevated standard of medical education should be adopted by all the medical schools for the degree of M D in the United States, and to properly present this question to the profession and the schools they appointed a committee to report at the same time

They also recognized the fact that men were being educated who had received no suitable preliminary training, and they appointed a committee to report a standard of requirements which should be exacted of such young men as purposed entering upon the study of medicine

---

[1] See Organization American Medical Association Preliminary Volume

They also recognized that principle was one thing and conduct another, and that the *Golden Rule*, however sound and correct, failed in practice, that, however good the intention, experience had shown that written rules and regulations were of much more binding force than abstract reasoning and even Divine Law They therefore deemed it essential that the entire medical profession in the United States should be governed by the same code of ethics, and to that end a committee was appointed to report

The question of the union of teaching and licensing in the same hands was also considered It was believed to be wrong in principle and liable to great abuse in practice Instead of conferring the right to license on medical colleges and State and county medical societies (as was then the custom), it was deemed best that it should be restricted to one Board in each State, a principle now fully recognized, and practically carried out, by the State of Illinois This was also referred to a committee to report

The subject of urging upon the several State governments the adoption of measures for a registration of marriages, births and deaths, was favorably considered, and referred to a committee

They also considered the necessity of a proper nomenclature of diseases, adapted to the United States, with reference to a general registration This was also referred for report

According to the best information I can obtain, only four of these pioneers of this Association are now living To them this Association owes a debt of gratitude which can never be paid Of these four, two have been honored by the Presidency—Dr A Stillé and Dr N S Davis Drs Alonzo Clark and Lewis P Bush are the other two All have reached their three score years and ten

The convention of 1846 adjourned to meet in Philadelphia May 5, 1847 Twenty two States and the District of Columbia were represented at that meeting by 247 delegates Considering the modes of traveling at that day it was a large representation of the profession of our country, and again showed the interest in the organization of this Association At this meeting the report of the committee on the organization of the American Medical Association was adopted, Dr John Watson, of New York, chairman, and, what is remarkable, stands with but slight changes as the present constitution

The report of the committee upon a uniform and elevated standard of requirements for graduation in medicine, which was adopted, called the attention of the profession to the necessity of a more rigid examination and a higher degree of preliminary education The Educational Department at once recognized the value of the suggestion, and to day we find the medical schools giving more attention to the quality of their graduates than to the numbers of those who receive from them the degree of M D

The report of the committee on preliminary education aroused the attention of both the private preceptors and the medical schools to the deficiencies of young men desirous of entering the profession The time had come when the demand for medical men with a modicum of preliminary education was less than the supply By means of the system of common schools, academies, colleges and universities, the people themselves were more highly educated Men entering into the learned professions readily observed that, in order to gain the respect of their patrons who were educated, they themselves must also be educated This report at once gave a stimulus in the proper direction, and from that day to the present, preliminary acquirements of a higher standard are required by all medical colleges which have any regard for the standing of their graduates Education is the requisite of a gentleman, and no one should be allowed to enter the portals of the medical profession who has not that qualification

The committee, under the resolution that it is expedient that the medical profession should be governed by the same code of medical ethics in this country, founded their report on the "basis of religion and morality," which comprised not only the duties but also the rights of a physician The high character of that committee, their age and experience, fully qualified them for the delicate duty imposed upon them Time has fully proved the wisdom of that report

The Code of Ethics as adopted has stood the test of nearly forty years, and for more than nine-tenths of the regular medical profession of these United States constitutes their rule of action and professional government

Even those styling themselves eclectics or homœopathists, have copied its principles in their constitutions and made it the basis of their relations to one another and to the public The government of the United States is based upon a written constitution, States and municipalities are governed by the same principles The doctrine of majorities as thereby inculcated governs the action of organized society in its minute ramifications, the medical profession is no exception We meet here to day upon this broad principle, and what is most remarkable, of every State Medical Society county society, or local organization which has adopted the Code, only one has repudiated it and entered upon the rôle of a *solitary minority* I allude to the Medical Society of the State of New York, from which came the invitation, in 1845, for the preliminary meeting that gave birth to this Association

To their honor be it written, the majority of the profession of that great State repudiated the action of their State Medical Society, and it now has the unenviable position of being solitary and alone in its opposition to the Code of Ethics The reason for this defection was so manifestly financial that its influence did not extend beyond its own jurisdiction It is through its Code that this Association represents the whole body of the medical profession throughout these United States, as the American Congress represents the people of the same

Could those wise men who framed this Code be here present with us to day in this hall and witness your presence, they would say, like one of old, "Now lettest thou thy servant depart in peace" But one of that committee is now living[1]

---

[1] Alonzo Clark M D New York City

In no one subject are the people of our country more interested than in that of medicine, and no profession is more respected.

Educated as the large majority of them are, they fully comprehend the relations of the profession. They are independent thinkers, and in their relation to the profession cannot be bought or sold. How wide the difference between this country and Europe! There a practice can be bought and sold, here a transfer is of no value because there can be no delivery.

It has been charged that this Association has failed to meet the requirements of its founders, and instead of being a body for the advancement of scientific medicine has degenerated into a body of "thankless intriguers and demagogues."[1] For thirty-nine years this Association has been in existence. At its organization no other National association of medical men existed.

A few of the older States had their State societies. The county societies in those States were few and far between. In the larger cities local societies were maintained, each was independent of the others. There was no general forum where individuals could present their investigations, and when presented, no general means of their dissemination. Could the transactions of this body be critically analyzed, the charge that scientific medicine has not been advanced by its existence would lamentably fail.

The character of the work done by the Association since its organization may be well exemplified by a few selections from its Transactions.

The essay of Dr. Dalton on the Corpus Luteum in Pregnancy gave him a National reputation as a physiologist.—*Vol. 4.*

The prize essay of Dr. Austin Flint, Sr., on the Value of Pitch in Percussion, and Respiratory Sounds and their Application to Physical Diagnosis, opened a new era in the investigation of pulmonary diseases.—*Vol. 5.*

Coxalgia or Hip Disease, by Alden March, M. D., an ex President of this body, gave the first impulse to the proper diagnosis of this disease, and its treatment.

The prize essay of Prof. Charles D. Meigs, on Acute and Chronic Diseases of the Neck of the Uterus, laid the foundation of the department of gynecology, and the plates illustrating his cases are copied to the present time.

The Surgical Treatment of certain Forms of Fibrous Tumors of the Uterus, by Washington L. Atlee, M. D., opened the field for the ovariotomist.

The Cell—its Physiology, Pathology and Philosophy, by Waldo I. Barnett, from original investigations, anticipated Virchow.—*Vol. 6.*

The new method of treating Ununited Fractures and Certain Deformities of the Osseous System, by Daniel Brainerd, would have done credit to Malgaigne.—*Vol. 7.*

Deformities after Fractures, by Dr. F. H. Hamilton, has become authority at home and abroad.—*Vol. 8.*

Statistics of Placenta Prævia, by Dr. J. D. Trask.—*Vol. 8.*

The Clinical Study of Heart Sounds, by Austin Flint, Sr., M. D.

The Physiology of the Arterial Circulation and the Chief Pathological Relations, by Dr. H. Hartshorne.—*Vol. 9.*

Report on the Nervous System in Febrile Diseases, and the Classification of Fever by the Nervous System, by Henry Frazer Campbell, M. D., indorsed by the late Marshall Hall.—*Vol. 10.*

Report on Moral Insanity and its Relation to Medical Jurisprudence, by D. Meredith Reese, M. D.—*Vol. 11.*

Report on a Uniform Plan for Registration of Marriages, Births and Deaths, by W. L. Sutton, M. D., laid the foundation for such record.—*Vol. 12.*

Report on the Influence of Alcoholic Drinks in the Development and Progress of Pulmonary Tuberculosis, by N. S. Davis, M. D.—*Vol. 13.*

Report on Morbus Coxarius, or Hip Disease, by L. A. Sayre, M. D., illustrative of the fixed treatment by Plaster of Paris.—*Vol. 13.*

Prize essay on the Pathology of Jaundice, by S. Fleet Speer, M. D.—*Vol. 13.*

Prize essay on the Criminality and Physical Evils of Forced Abortion, by H. R. Storer, M. D.—*Vol. 16.*

Prize essay on the Surgical Treatment of Morbid Growths within the Larynx, by Louis Elsberg, M. D., the father of laryngoscopy.—*Vol. 16.*

Report on the Etiology and Pathological Relation of Epidemic Erysipelas, Spotted Fever and Diphtheria, by N. S. Davis, M. D.—*Vol. 17.*

Report on Plaster of Paris in Surgery, by James L. Little, M. D.

Prize essay on the Treatment of Certain Uterine Abnormities, by Montrose A. Pallen, M. D.—*Vol. 18.*

Report on the Best Treatment for Different Forms of Cleft Palate, by W. R. Whitehead, M. D.—*Vol. 20.*

Mollites Ossium, by Joseph Jones, M. D.—*Vol. 20.*

Prize essay on the Treatment of Aneurisms, with Experiments for the Closing of Arteries by a New Method, by Benj. Howard, M. D.—*Vol. 21.*

Prize essay, Atropia and its Salts, by Roberts Bartholow, M. D.—*Vol. 20.*

What Physiological Value has Phosphorus as an Organismal Element? Prize essay by Samuel R. Percy, M. D.—*Vol. 23.*

Syphilis in its Relation to the National Health, by S. D. Gross, M. D., LL. D., Oxon.—*Vol. 26.*

A Discourse on Blood Letting, the Lost Art, by S. D. Gross, M. D., LL. D., Oxon.—*Vol. 26.*

History of Yellow Fever and Dengue in Texas, by Greenville Dowell, M. D.

Excision of Large Joints of the Extremities. A prize essay by H. Culbertson, M. D.—*Supplement to Vol. 27.*

Report on Animal Vaccination, by H. A. Martin, M. D.—*Vol. 28.*

Prophylaxis of Septicæmia in Surgery, by E. M. Moore, M. D.—*Vol. 29.*

Surgical Anatomy and History of the Common External and Internal Carotid Arteries, Anatomy and History of the Innominate and Subclavian Arteries. A prize essay by John A. Wyeth, M. D.—*Vol. 29.*

The Pathology of the Bones, by Henry H. Smith, M. D.—*Vol. 29.*

---

[1] New York Medical Journal, page 44, 1885.

Blepharoplastic Operations, by A C Post, M D —*Vol 29*

Prize essay Consideration of Certain Forms of Primary and (Local) Secondary Degeneration of the Lateral Columns of the Spinal Cord, etc , by Allan McLane Hamilton, M D —*Vol 30*

Treatment of Fibroids of the Uterus by Means of Dry Earth, by Addinel Hewson, Sr , M D —*Vol 31*

Progress in the Knowledge of the Acute Contagious Diseases and Infection, by A Jacobi, M D

Fibroid Tumors of the Uterus, by H O Marcy, M D —*Vol 33*

These papers fully illustrate the character of the work done by the Association since its organization Besides the reports on Medical Education, Medical Literature, Registration of Marriages, Births and Deaths, Medical Jurisprudence, Hygiene and Insanity, Meteorology and Epidemic Diseases, Cryptogamic and Zymotic Diseases, Practical Medicine, Materia Medica, Physiology, Obstetrics and Diseases of Women and Children, Surgery and Anatomy, Chemistry and Psychology, Pediatrics, State Medicine, etc , scarcely a question of importance, whether in the interest of the profession or the public, has failed to receive investigation

Before the time of this Association, specialties in medicine were unknown All medical men were general practitioners The prominence given special diseases by its reports and investigations led men to give special attention to particular diseases The accretions of people in the larger cities developed the field for a division of general practice, and the selection of a particular branch of disease, applicable to a particular organ, was soon found to be remunerative and less toilsome The advance of time developed the number of specialties The first to organize a National Association were the Ophthalmologists, the leading specialty, then followed the Otologists, Gynecologists, the Dermatologists, State Medicine and Hygiene, under the name of Public Health, the Laryngologists, the Surgical Association, and latest, the Association of Physicians and Pathologists Some of these Associations are necessarily limited in number others have specified their limitation All are off shoots of this Association Each occupies a limited territory The American Medical Association covers the whole field of medicine, and through its Sections affords an opportunity to every member, whether high or low, to give to the profession any and all of his personal knowledge

> "No pent up Utica contracts its powers,
> The boundless universe of Medicine is ours "

The course of events in science, as well as in medicine (and I use the latter term in its broadest sense), demonstrated that much which is called new has had its expression in the writings of the fathers, and experience has shown that change is not always progress

The prevention of yellow fever, the scourge of the Gulf States, is a problem in which our whole country is interested Dr Joseph Holt, of New Orleans, President of the State Board of Health of Louisiana, has given much time and study to this question A bill has been reported in the House of Representatives, at Washington, appropriating money to investigate whether it can be aborted and even prevented

A proper resolution adopted by this body, approving such a bill, would have great weight with Congress It is highly proper that all such investigations should be conducted at the expense of the general government

A series of resolutions were adopted by this Association at the meeting in Atlanta, Ga , on the metric system, which have been a dead letter in the Transactions ever since The several State Medical Associations, which at that time also approved the system, have never applied it in their Transactions Only a few of the profession follow it in writing their prescriptions, and with rare exceptions it is not used by writers on medicine Dr Oldberg, through whose influence while medical purveyor in the United States Marine Hospital Service it was introduced, has declared it a failure I would therefore recommend that it be stricken out of the list of ordinances

The value of the Sections has been so fully proven that I would recommend that in addition to the proposed new Section of Medical Jurisprudence, one on Dermatology and Syphilis be added

The work in the Sections depends so much upon the efficiency of their officers, the Secretary in particular, and as permanency adds to efficiency, I would recommend that the Secretaries of Sections be made permanent, subject to removal on the recommendation of the Section The wisdom of such permanency can be readily comprehended

In imitation of the British Medical Association, the journal system was adopted I take great pleasure in stating that thus far it has been a satisfactory success The Board of Trustees, with its efficient Editor-in chief, have so managed its finances that it has proved no incumbrance on the Association The plan adopted of receiving members by application, has proved satisfactory, not only by increasing the circulation of THE JOURNAL, but also by increasing its emoluments The report of the trustees will give you a full and explicit statement of its financial condition and its growth

I would also call the attention of the members of the Association to paragraph 3 sec 4, of the by laws "Every paper received by this Association and ordered to be published, and all plates or other means of illustration, shall be considered the exclusive property of the Association, and shall be published and sold for the exclusive benefit of the Association "

As this by-law makes all addresses, papers and reports presented to the Association, or in its Sections, the exclusive property of the Association, it is not proper to give copies of such addresses to other journals to appear entire before or simultaneous with their appearance in THE JOURNAL OF THE ASSOCIATION If the proprietors of other journals choose to employ competent reporters to secure such reports and abstracts of your proceedings, either in the general session or in the Sections, I would place no obstacle in their way But if they wish to use papers in full, let them copy the same from the official organ of the Association, giving proper credit therefore And every member of the Association should have sufficient interest in sustaining THE JOURNAL that it has established, to comply fully with the by law I have quoted

I respectfully call your attention, and through you that of the medical profession at large, to the last paragraph of sec 2, art 1, "Duties for the Support of Professional Character," Code of Ethics, to wit "It is also reprehensible for physicians to give certificates attesting the efficacy of *patent* or secret medicines, or in any way to promote the use of them" The fact that proprietary medicines were not included in this paragraph has left the door wide open for the greatest abuse and injury both to the profession and the public Practically there is no difference between a patent medicine and a proprietary one In the former the constituents are not known, and although given in the latter, there rests an ownership in their combination that prevents them being compounded by others Professional men of high repute who lend their names as endorsers to any proprietary medicine should be looked upon by the profession as aiders and abettors, and should be proper subjects for discipline in any honorable medical society It is one of the crying evils of the day, and does injury both to the profession and to the public

The stigma of professional disgrace should rest upon any regularly educated physician who allows his name to be advertised as the endorser of any patent, secret or proprietary medicine

The British Medical Association is peculiar in its organization, consisting of the parent stem and its branches It has been suggested that this Association be modeled upon the same plan, by the formation of branches in the different States and Territories

Upon a careful examination of the Constitution of the British Association and its branches, I am unable to discover any superiority to that of this Association and its affiliations

In practical application our own system meets the same ends Late leading articles in THE JOURNAL OF THE ASSOCIATION have so well discussed the question that it needs no further elucidation from me However, its reference to a committee to report next year might be profitable, as any information or change that can add to the improvement and advantage of the Association should be adopted

It is with great pleasure that I am able to inform you that the action taken at the meeting in Washington, inviting the Ninth International Medical Congress to meet in the Capital City of the United States in 1887, is being fully consummated The general officers of the Congress and Council, and the officers of the Sections, are gentlemen of renown in our own country, who add lustre to American medicine Full and complete arrangements will be made for the meeting, and our foreign friends will receive a cordial welcome Upon the reception of the report of your committee on the preliminary organization of the Congress, I believe you will find it satisfactory, and upon its adoption the further charge of the Congress will pass into the hands of the Executive Committee, as provided in Rule 10, thus relieving this Association of its responsibility in the matter

As the authority of this body to act for the medical profession of the United States has been questioned, it may be proper for the information of many of the members to briefly present, in a concise manner, the relations of the Association to the coming International Congress

A Medical Congress to be International must necessarily be composed of members from different nations Eight of these Congresses have been held in Europe, if we may except the International Medical Congress held in Philadelphia, September 4, 1876, the last of which was held in Copenhagen, Denmark

At the meeting of this Association in Washington, D C, in May 1884, the President, Dr Austin Flint, Sr, suggested the propriety of inviting that body to meet in this country The suggestion was referred to a committee who reported favorably A committee was appointed to present the invitation This committee was made broad so as to represent the whole profession of the United States The invitation was accepted This committee was further authorized, in the event of the invitation being accepted, to add to their numbers, and proceed to perfect an organization with rules for its government This the committee did in accordance with custom and the rules governing the action of committees This committee made its report to this Association at its next meeting, which was in New Orleans, the 28th day of April, 1885 By this action of the committee they fully recognize their responsibility to this body, and not to the profession at large

This report was not satisfactory, and the committee was enlarged by adding a member from each State and Territory, the Army, the Navy, and Marine Hospital Department To this action the original committee demurred, and declined to take any further interest in the arrangements That the Association was correct in its action I have only to refer you to *Cushing's Manual of Parliamentary Law*, the authority in this country, page 154, paragraph 262 When this committee made their report, and it was accepted, the committee was virtually discharged, (page 168, paragraph 290) The report was not adopted What had passed in the committee was of no validity It was in the power of the Association to discharge the committee from further consideration of the subject, to refer it back to them with instructions, or to enlarge the committee The latter plan was adopted

It was claimed that there was an ambiguity in the resolution appointing the original committee in reference to their powers and duties Whatever that ambiguity was, the committee itself settled the question by making their report to the Association, thereby acknowledging the authority of their powers and duties

I cordially unite with the general sentiment of the medical profession that the report of your committee be adopted, and that those of our brethren who may be somewhat disappointed at results will yield their personal feelings to the common good, and by their work demonstrate to our foreign friends that, although there have been warm feelings, warmly expressed, they can rise above their personalities in the great question of Medical Science and National Hospitality

Gentlemen, matters of importance arising out of the ordinary proceedings of this Association may come before you at this meeting, and questions may arise affecting its honor and integrity. Even the existence of this Association, so dear to the hearts of the medical profession of these United States, may be hazarded. Upon you as its representatives will rest its preservation. Thirty-nine years of existence has entitled it to your support. Its work and beneficent influences are on record, and speak for themselves. May I ask of you, as its President, to give careful consideration to any and all matters that may affect its interest and permanency, so that when you return to your constituency you can tell them that, although the Association has been attacked by foes within and foes without, it yet stands as the representative of the American medical profession.

In conclusion, may I kindly ask of you the amenities due to the office to which you have so kindly promoted me, and your cordial support. It shall be my endeavor to be impartial, and to perform the duties of the chair according to strict parliamentary rules.

The honor of being elected by you as President of the American Medical Association is one that words cannot express. For thirty-two years I have, whether present or absent, had its interests deeply at heart, and when my term of office expires I will gladly return to the ranks with the same zeal for its interests which I felt when I first became a member in this great city of the south-west, St. Louis, Missouri, at the meeting of the Association here in 1854.

ORIGINAL ARTICLES.

TWO CASES OF REFLEX PARAPLEGIA (ONE WITH APHASIA), FROM TAPE-WORM AND PHIMOSIS.

BY WM. G. EGGLESTON, M.A., M.D.,

OF CHICAGO, ILL.

The existence of a "reflex paralysis" was denied about two years ago (May, 1884) by Dr. C. J. Nixon in a paper read before the Academy of Medicine in Ireland. Dr. Nixon's paper was to the effect that the cases of paralysis of which amaurosis from affections of the fifth nerve, and paralysis of the orbital nerves from a like cause, are examples, may be explained without reflex mechanism. As regards the views of Brown Séquard, Gull, Leyden, and others, and the experimental observations on the subject, he said that there was no true conception[1] of the mode in which paralysis by reflex action is brought about, unless we understand it to be produced by inhibitory influence; so that reflex paralysis, if it have any meaning, must be inhibitory paralysis. He thought that there is no necessity of admitting the existence of an inhibitory paralysis as, taking for example the cases recorded as reflex paralysis, they could arise in different ways—as an ascending neuritis, which sets up myelitis from extension along the veins[2] to the spinal cord, or from a lumbo-sacral neuritis, which descends along the sciatic nerves. He held that the cure of a paralysis by such a simple procedure as lancing a gum was a physical impossibility. It is particularly to be noticed that though he said he had never seen a case of reflex paralysis, he quoted examples of *inhibitory* nerve influence, which he says is another name for reflex paralysis!

At the meeting at which this paper was read Dr. Kennedy opposed Dr. Nixon's views, as did others, and stated that he had seen several cases of arm-paralysis from gingival and intestinal irritation, the paralysis disappearing on the removal of the irritation. Two or three years ago Dr. Gomez Torres reported the case of a woman with paralysis and atrophy (partial?) of the upper extremity. Examination showed a chronic parenchymatous metritis and extensive ulceration of the cervix. She began to improve almost immediately under proper treatment for the uterine affection. Frankel has recorded a case of hemiplegia due to indigestion. In the *Journal de Medecine et de Chirurgie Pratique*, September, 1884, are recorded three cases of aphasia from indigestion. A boy, 3 years old, was aphasic for two hours, and recovered after vomiting; a little boy was aphasic for a day, and recovered after vomiting; a little girl was aphasic for about a day and recovered in the same way. The two cases which follow may, I think, be regarded as undoubted examples of reflex or inhibitory paraplegia.

Case 1.—Reflex Paraplegia and Aphasia from Tape-worm.—In July, 1884, a woman brought her little girl, æt. 6 years, of German parentage, to my office (in Philadelphia). The child had been under treatment in one of the dispensaries for five weeks for spinal disease. It was taken to the dispensary on the day after its illness became markedly prominent. The symptom first noticed was inability to speak, and on the next day it was unable to walk. Previous to this the child had not been sick since its second year, though it had frequently complained of its stomach. There had been no vomiting, and no diarrhœa. The mother stated that there had been no difficulty in swallowing at any time, and the child's appetite was enormous. It had no difficulty in putting out its tongue, voluntary movements of the upper extremity were normal, and the pupils were normal. The vesical and rectal sphincters were under control.

Physical examination showed entire absence of painful spots along the spine, absence of cardiac disease, a rather marked enlargement of the abdomen, and no anæsthesia, rigidity or atrophy of the paretic legs. The patellar reflexes were normal. In testing for anæsthesia I drew a pencil along the anterior aspect of one leg, and found, to my astonishment, that a white line was produced. The same line was produced by irritation of the other leg. This convinced me that the paraplegia was not due to spinal disease, in which irritation produces a red line. In the erect position the child was utterly unable to move the legs, while in the recumbent posture it could draw them up with apparent ease; facts which at once recalled the remarks of Romberg[1] on reflex paralysis from intestinal irritation. The fact that the child had for some time prior to its illness eaten raw meat with its parents, and the further fact that there was a condition of marked pruritus at either end of the alimentary tract, caused me to make a temporary diagnosis of tape-worm

---

[1] Abstract in The Lancet, August 23, 1884.

[2] A way of transmission supposed by Gull.

[1] Diseases of the Nervous System, Sydenham Edition, 1853.

I instructed the mother to give only milk for the child's supper, and to give two teaspoonsful of spirits of turpentine at 6 A M, with the same quantity of milk, two at 8, and two at 10 with a tablespoonful of castor oil The mother was to report if the turpentine caused any unpleasant effects

On the day after the turpentine was administered the mother brought me a bottle containing a tænia solium, five feet and a few inches long, with the head The tænia was passed about noon, two hours after the dose of castor oil was given It was the ordinary pork tape worm—tænia solium, as stated above

The patient did not speak or walk until the morning after the tænia was evacuated There was then no difficulty in articulation, nor did it seem to have forgotten its ordinary vocabulary The power over the legs was not so suddenly acquired, but when brought to my office two days afterwards there seemed to be no difficulty in locomotion

Here was a case of simple paralysis of the lower limbs, of two months' duration, sudden onset, accompanied by aphasia, neither of which were intermittent, and evidently in no way connected with chorea, without sensory trouble, or want of control over the bladder and rectum It seems in the highest degree improbable that either of the troubles for which she came under treatment could have been due, as Dr Nixon thinks, to an ascending neuritis—as improbable, in fact, as that the twitching of the eyelid so frequently seen in dyspeptic cases should be due to a sudden neuritis, which disappears equally suddenly This is more especially true of the three cases cited above from the *Journal de Medecine de Paris*

Case 2 —Reflex Paraplegia and Strabismus from Phimosis—On January 3, 1886, I was called to see E K, æt 3 years, a poorly nourished boy, of rather rachitic appearance The mother said that he had never walked as well as he should for his age, and that for two weeks the power over the lower extremities had decreased very rapidly until it was noticed on January 2 that he could not walk at all Two days before this it was first noticed that his eyes were strabismic—alternately convergent and divergent The father was a traveling man, and the boy had been under electric treatment in Kansas City for a week before coming to Chicago

On examining the patient I at once discovered that there was a considerable degree of phimosis, with two adhesions In the recumbent posture he could draw the legs up with much difficulty, but when erect he had no power over them There was no anæsthesia, no tender spots along the spine or elsewhere The patellar reflex was normal The rectal sphincter was under perfect control, but there was some loss of power over the vesical It was easily seen that the strabismus was alternately convergent and divergent Remembering the white line produced by irritation of the skin in Case 1, I found that the same thing occurred in this case [1]

Three drops of an eight per cent. solution of cocaine were injected between the glans and foreskin, and the adhesions were easily and painlessly ruptured within two minutes The line of operation was then marked out, the foreskin drawn forwards and caught in a pair of padded forceps, and three drops of the cocaine solution injected into the foreskin at different points The forceps were then gradually tightened in order to prevent the cocaine gaining access to the general system and possibly causing evil effects Two minutes after the injection there was no sensibility to a needle run through the foreskin, and it was then severed The cocaine solution was then applied locally around the corona, and the operation was leisurely completed without a cry from the patient

The operation was performed late in the afternoon, and it was not hoped that any result could be seen until the following day On the next morning the strabismus was only slightly noticeable, and it passed away entirely within forty eight hours after the operatian The patient was kept quiet for three days on account of the operation When he got up he could walk fairly well by supporting himself with a chair As he had never walked well it was not to be hoped that locomotion would be very good until after the lapse of several weeks He was put on tonic treatment, and his father left Chicago ten days after the operation On April 17 he wrote from Omaha that his son walked easily without support, that there was no squint, and that his general health was very much better

Mr D Corbett, of Dublin, has reported[1] the case of a girl, æt 7, whose condition was described by her father, a medical man, as follows "Nothing unusual in her condition since birth was observed, until within a period of two years, when weakness of the lower extremities showed itself, accompanied with occasional impairment of vision This state of things gradually grew worse, until the power of progression was quite gone, unless assisted, and there was complete loss of vision when she assumed the erect from the sitting posture, though in the latter she could distinctly see large objects" Mr Corbett found incompletely ruptured wisdom teeth in the lower jaw, and giving unmistakable evidence of severe pressure against the second molar to the extent of slight lateral displacement downwards The second molar on each side was extracted Slight improvement was noticed in a week, and three months afterwards all constitutional disturbance had disappeared, except that vision in the right eye was lost

McKendrick[2] has reported the case of a woman, aged 29, who had suffered for seven months from a partial paralysis of the lower limbs, with normal sensibility She passed a tape-worm nearly twenty two feet long, and four days afterwards had completely recovered the use of her limbs Fuller[3] has reported the case of a boy, 3 years old, who had paralysis first of the right leg, and then of the left Immediate improvement followed a dose of santonine, which brought away fifty-three dead lumbricoid worms

---

[1] Unfortunately it did not occur to me in either case to test the skin of the unaffected portion of the body

[1] Transactions Seventh International Congress iii, 474

[2] The Lancet Vol II 1865

[3] Lancet Vol II 1866

Moll[1] reported the case of a woman who suffered for three months from paralysis of the upper extremities All the symptoms disappeared immediately upon the expulsion of a tape worm

The number of cases reported in which recovery has followed immediately upon removal of the irritation is too large, though the number may be absolutely small, to admit the idea of organic spinal lesion In some of the cases of peripheral paralysis reported by Mitchell, Keen and Morehouse, for example, the paralysis in the parts supplied by one nerve followed injury to another nerve too soon to admit of any anatomical lesion In many cases the paralysis can be explained in no other way than as a reflex inhibitory action Echeverria reported, in 1863, a case of paraplegia of the lower extremities caused by the application of electricity to an ulcerated os uteri The paraplegia disappeared in fourteen hours Nonat[2] published a case of loss of consciousness and paraplegia due to cauterization of the cervix uteri Landry reported a case in which paralysis disappeared after restoration of a deflected uterus Rosenthal has reported a case of a woman, 23 years old, who suffered for three weeks from paresis of the legs, coming on after pains and cramps in the abdomen A needle was found deeply imbedded in the vagina, and the paresis rapidly disappeared after its removal

M Molard has recently published[3] a case of amaurosis, in which it is fair to assume that a tape worm was an, if not the, etiological factor The patient, a man, was seized with sunstroke, and subsequently exhibited symptoms of cerebral congestion, accompanied by amaurosis This condition disappeared for a time and then returned The muscles of the neck were stiff, pharyngeal spasm occurred, he became insensible, delirious, and presented amblyopia, with dilated pupils It was then ascertained that the patient was *subject to frequent cerebral attacks of a similar character*, and that each attack coincided with the expulsion of fragments of tænia The bark of pomegranate root was administered, the worm was expelled, the patient's condition improved, and he was finally cured

Dr W B Hadden[4] records some very interesting cases of aphasia and paralysis occurring in chorea. He calls "attention to the apparent resemblance which exists between the speechlessness of chorea and the motor paralysis Both are transitory conditions, probably dependent on inhibition of motor centres and not necessarily due to exhaustion by antecedent spasm '

We may admit that it is against all analogy with what is usually seen that vascular constriction to the extent of causing paraplegia (as has been held) will be persistent But there are some cases which can scarcely be explained as being due, not to reflex irritation, but to a definite abnormal condition of the peripheral nerves, that affected the cord by lines of anatomical transmission As Fox[5] very properly remarks, it is the very essence of the pathology of the sympathetic system that the irritation in one organ can be reflected through a sympathetic ganglion as a centre of a reflex arc "but that such an irritation can reflect through a ganglion a persistent constrictive effect on a vessel seems to militate against the ordinary phenomena of physiology and disease. And yet it is only fair to place upon record any facts that, exceptional as they may be, tell in any way against this commonly received dictum The following instance is a case in point

"A very sensible and active shopwoman, 36 years of age, gave the following account of herself She believed that she had been born blind of the right eye At any rate she remembered, when she was a very little girl, being taken to see an oculist in London, who said she would never see with that eye She could not distinguish light with it In January, 1882, she had a canine tooth on the right side of the mouth extracted She immediately became conscious of light, and in a few days entirely gained sight in this eye The optic disk and retina were perfectly normal, yet for thirty six years she was quite blind, apparently from some reflex influence connected with the alveolus of that tooth With such an instance, it may not be well to speak of the impossibility of reflex irritation or reflex paralysis being persistent for long periods Nor is it well to speak, as does Dr Nixon, of the physiological impossibility of a true reflex paralysis

Some authors hold that in order to establish a causative relation between different local lesions and paralysis, it is necessary to show that the former precede the occurrence of the latter in a large number of cases, and that when we consider that the various local diseases which are supposed to have causative connection are not associated with paralysis in the vast majority of cases, such a connection, when the association exists, is conjectural But I do not see that the causative relation is so conjectural, even if the number of cases be small comparatively The number of people, for example, in whom quinine will produce a rash is very small, and the number of people who always have urticaria after eating shell-fish is also very small Yet the authors, some at least, who hold that the causative relation of local irritations to paralysis is conjectural distinctly avow that urticaria may be caused by eating shell fish It seems rather inconsistent to hold that the one cannot set up a reflex paralysis while the other may cause a reflex cutaneous affection

In reflex paraplegia, according to Ross, the paralysis is never complete, and Charcot says that the reflex activity of the cord is never increased There is absence of pain in the loins, of girdle pains, dysæsthesiæ, anæsthesia and of contractures (?), of paralysis of the bladder, and of bed-sores and other trophic disturbances (Ross)

Fagge thought that "the only way in which one can exclude the possibility that the relation between the primary disease and the paralysis is purely accidental, is to show that the cases in question are too numerous to admit of such an explanation But can this be shown? I must for my part confess that I have never yet had under my care a patient who appeared to me to be suffering from reflex paraplegia"[1] He thinks it scarcely possible to exclude hysteria as a cause of the loss of power in those cases in which women rapidly recover from paralysis after reduction of a flexed uterus But is there any more reason why a displaced uterus should not cause reflex symptoms than that they should be caused by intestinal worms, by dental irritation, or by stricture of the urethra? Graves recorded the case of a man who was admitted to the Richmond Hospital in 1835 with partial paraplegia of two weeks' standing, and a tight stricture which had existed for some months " "He had recently been exposed to cold and wet, and this might have been regarded as the cause of the paralysis But in a very few days after the first introduction of a catheter a remarkable improvement took place in his legs and in his back, where he had much pain In fact, the change was almost sudden, and within a month the power of the lower limbs was almost restored It would seem that we may fairly regard this as a case of reflex paraplegia" But it seems that there is much more reason for regarding this as a case of recovery from slight myelitis, in view of the length of time required for recovery, than many of the cases of true reflex paraplegia which have been regarded as doubtless due to hysteria or myelitis

---

[1] Quoted by Ross from Brown Séquard

[2] Quoted by Rosenthal

[3] Receuil d'Ophthalmologie quoted in the British Medical Journal Nov 21 1885

[4] St Thomas s Hospital Reports n s Vol XIV

[5] E Long Fox Influence of the Sympathetic on Disease London 1885

Again, it is not at all unreasonable to suppose that many cases commence as reflex cases, but that long persistence of the irritation may set up a myelitis And if we hold that the cases of supposed reflex irritation are really due to myelitis, we are reduced to the pathological absurdity of maintaining that a myelitis may be entirely cured within twenty four hours, or else that all the cases of quick recovery on the removal of an irritation are mere coincidences of nervous affection and the presence of an irritant[3] In reply to those who say that it must be shown that the cases in question are too numerous to admit of any other explanation than that of coincidence, it may be said that they are too numerous It is not at all necessary to confine the evidence to cases of paraplegia. If the presence of an intestinal irritation can cause general convulsions, chorea, incontinence of urine, epilepsy and aphasia, or decay of a tooth headache, a nasal polypus epilepsy,[4] nasal irritation cough, etc, it is entirely admissable to hold that paralysis may be solely due to irritation conveyed reflexly Even admitting that many of the cases occurring in women may be fairly attributed to hysteria, we may practically exclude hysteria in the cases of young children who have presented these symptoms and recovered almost immediately after removal of an irritation an irritation which, had it been proved and produced in slighter affection, would certainly be held to be the direct cause of the affection

Eichhorst[1] says The name reflex paralysis is based on the idea that affections of the peripheral organs can so act on the cord that spinal paralyses are produced therefrom They almost always appear as paraplegias Reflex paralyses most frequently appear in connection with diseases of the uro genital and intestinal apparatus The possibility of the occurrence of reflex paralysis in the proper sense must certainly be admitted for those cases in which a paralysis disappears almost immediately after the cause is removed, as it can scarcely be due to anatomical changes in the nervous system, still, in our present experience these changes are the exception

Lewisson's theory, which is probably correct in true reflex paralysis, is that the paralysis is due to an arrest of the functions of the motor nerve centres, in consequence of excessive irritation of the sensory fibres" We need not go so far as Jaccoud, and say that reflex paralysis paraplegia is due to an "exhaustion" of that portion of the cord upon which fall the stimuli conveyed upward by the sensitive nerves belonging to an irritated part, a theory which is unsupported[3] It is only necessary to know that the sympathetic ganglia can act as independent centres for reflex arcs[4] This takes place as each blood-wave in its passage along the arterial system, forms the stimulus to the eisodic conductors to one another of the minute sympathetic ganglia found along the course of all the blood vessels, their function being the reception of these stimuli from the fibrils excited by the blood wave, and reflecting the order for contraction down the exodic fibres to the vessels again[5] Sorgenfrey has raised the question as to whether Landry's paralysis[6] may not be due to vaso motor disturbances (in a report of a case cured by ergot)

These considerations naturally suggest the idea of Eichhorst,[7] that the aphasia of chorea, catalepsy, intestinal irritation, etc, is due to ephemeral circulatory trouble, by which he must mean vaso motor trouble, and necessarily a reflex vaso motor trouble Martin Bernhardt[8] recognizes reflex action from the digestive tract as an etiological factor in aphasia (reflex aphasia) We know that contraction is the function of the vaso motor nerves most frequently called into exercise Now in paraplegia by compression white lines are more easily produced by irritation of the skin than red lines (the so called meningeal lines), and it is to be noticed that in both the cases reported by the writer white lines were produced when the finger was drawn across the legs

The application of the doctrine of "inhibition" to paraplegia was made by Lewisson in 1869 In a series of experiments on rabbits he succeeded in paralyzing the lower limbs by squeezing the kidney, the uterus, or a loop of intestine The loss of power continued while the pressure lasted, or a little longer, and disappeared abruptly In *Guy's Hospital Reports*, 1868, Mr Salter gives two cases in which caries of wisdom teeth not only caused severe pain in the arm, but partial paralysis of the muscles In one case all the symptoms passed off as soon as the tooth was drawn, and in the other a like result followed within a few hours after drawing the tooth Fagge refers to these cases, and admits that they, and some cases of paraplegia occurring coincidentally with intestinal worms, are "in perfect accord with Lewisson's experimental results, since they subsided as soon as the source of irritation was removed" Just how many cases of an almost exact similar nature, with abrupt termination on removal of a coincident irritation, have been reported can only be learned by a thorough examination of medical literature The cases reported in this paper have been found in a very short time and with a very limited literature at hand But I think that a sufficient number have been referred to to permit the idea that the nervous affections and the irritants are not always mere coincidences, and that even when the affections occur in women it will not do to say always that "it is scarcely possible to exclude hysteria as a cause of the loss of power"

---

[1] Practice of Medicine Vol I p 409

[2] Fagge l c, p 407

[3] C B Radcliffe (Reynolds's System of Medicine Vol II London Ed, 1878) says that reflex paraplegia differs diametrically from paraplegia produced by myelitis 'In paraplegia from myelitis the paralysis is associated with tingling numbness or anæsthesia not so in reflex paraplegia In paraplegia from myelitis paralysis of the bladder and lower bowel is a marked phenomena not so in reflex paraplegia In paraplegia from myelitis the paralyzed muscles are usually atrophied and degenerated not so in reflex paraplegia In myelitic paraplegia cure or even improvement, is the exception in reflex paraplegia it is the rule But the diagnosis between reflex paraplegia from congestion of the cord is extremely difficult I would not say that the paraplegias differ diametrically but simply that paraplegia from myelitis is a more complete paralysis

[4] Fincke Deutsche med Wochenschrift No 4 1886 quoted in Jahrbuch d Pract Med Hft 1 1886

[1] Specielle Pathologie und Therapie Bd III

The inhibitory' theory It seems however that he should have inserted the word *certain* before "motor nerve centres'

[3] Unsupported pathologically though by no means untenable and certainly not unintelligible as Fagge seemed to think

[4] While we may admit that cases of reflex paraplegia are due *to an affection* of the central nerve structure of the lumbar region cord it is not at all necessary to hold that the cord is damaged

[5] Fox l c

[6] Acute ascending paralysis

[7] L c Bd III

[8] Virchow's Archiv Bd 102 S 26 quoted in Jahrbuch d Pract. Medicin 1886 p 312

Bramwell,[1] in discussing the functional paralyses occasionally resulting from peripheral irritation acting reflexly, says that the cases in which there is an organic lesion of the cord cannot correctly be termed *reflex*, if we understand by that term *a functional paralysis due to peripheral irritation acting reflexly* "True reflex paralysis is undoubtedly rare, but that it does occasionally occur in man seems beyond dispute, and that it can be induced in the lower animals seems proved by the remarkable chloroform experiments which Brown Sequard has lately published The diagnosis of reflex paralysis is always hazardous, and should only be made when

1stly There is no evidence of organic disease

2dly There is a manifest source of peripheral irritation

3dly and *chiefly* The removal of that irritation is followed by disappearance of the paralysis

Temporary paralysis due to vaso motor changes in the cord are sometimes met with and are clearly functional in character"

ARSENITE OF BROMINE IN DIABETES MELLITUS

BY N S DAVIS, JR, A M, M D,

ADJUNCT PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE IN THE CHICAGO MEDICAL COLLEGE ATTENDING PHYSICIAN TO THE MERCY HOSPITAL

In July, 1884, an article appeared in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, written by Austin Flint, Jr, on "Diabetes Mellitus" In this article he recommended for medicinal treatment the liq brom arsenitis, first suggested by Clemens

During the last year I have had opportunity to try this drug in a considerable number of cases They have so uniformly progressed favorably that I have thought it worth while recording them It is difficult, however, to estimate justly the action of any drug in this disease, for we know that a proper modification of the diet will alone produce the most marked curative effects, and probably no one ventures to treat a case without simultaneously regulating the patient's diet

The first case in which I used the arsenite of bromine was that of a lady past middle life, living in a neighboring city She had for several months been losing strength and flesh She complained of a perverted appetite for liquids, and noticed that the urine was passed with frequency and in unusual quantities The symptoms that are most noticed by the patient were an unnatural weariness on slight exertion, and a very considerable loss of flesh, amounting to twenty pounds or so in six or eight weeks In this case, there was frequently present a peculiar stinging pain in the tongue, and a twitching of that organ

When the urine was examined, it was found to be heavily laden with sugar A strict diabetic diet was prescribed, together with the arsenite of bromine in three drop doses three times daily, also granules of digitaline, each of one sixtieth of a grain The latter was used to steady and strengthen the heart's action, which was unusually weak and somewhat irregular

At the end of the first week, a trace only of sugar was found in the urine and all the symptoms were mitigated The dose of the arsenite of bromine was increased to five drops At the end of the second week, or a little sooner, all trace of sugar disappeared from the urine, and there was a steady and marked general improvement This improvement was steadily maintained, and in two months from the time the patient came under treatment, she was feeling quite herself again Although frequently tested, the urine never showed signs of sugar after its first appearance The patient was as faithful for four or five weeks to the prescribed diet as one can be, and returned to an ordinary diet very gradually She has been under observation for nearly a year now and has shown no signs of a relapse

The second case was also in a woman, a little past middle life, but in the middle class of society When first seen she complained of excessive weakness, which had gradually but, somewhat rapidly stolen upon her, and an excessive and seemingly unquenchable thirst She had lost flesh only moderately The appetite for food was scarcely up to the average The urine was more abundant than normal, and was clear and limpid She was so weak, or as she expressed it, "so tottering upon her feet," that she could scarcely walk across the room The weather was sultry, but her skin was dry

She, also, was placed upon the arsenite of bromine in five drop doses three times daily, and her diet prescribed In the use of a restricted diet she was not at all persevering I think, therefore, that in this case little of the improvement which followed treatment can be ascribed to the food eaten or rather uneaten

---

[1] Brain Vol IV p 41

In a week from the first visit she had so far improved that she could easily get about the house, and the sugar had disappeared almost entirely from the urine The thirst had disappeared, and in every way she was improved I did not get a sample of the urine to test until ten days had passed, and in this no sugar was found Improvement continued steadily After this date I ceased to hear from her directly From other members of her family, who consulted me in regard to themselves, I learned from time to time during several months that she was feeling quite well

The third case that came under my observation in this period is not worth recording, as after making a diagnosis and prescribing as in the former cases, it passed into other hands It was a gentleman already under treatment who came to me for additional counsel

The fourth case was that of a lady in the best station of life, about fifty years of age She had been under my father's care for four or five years, and my own, at times, for two years In her case the diabetes usually came readily under control, but in from six to nine months there was apt to occur a relapse These relapses were marked by loss of flesh, but much more marked loss of strength and energy She had during all those years adhered to a modified diabetic diet, being allowed a very little sugar in her coffee in the morning, and a very moderate amount of wheat bread The relapses, or return of diabetic trouble, could nearly always be traced to over-exertion and a little laxity in the diet If she attended two or three lunches or receptions in quick succession, and was tempted to take preserved fruit or cake, a new outbreak of the disease was very apt to follow

At the time of which I now write she was suffering from an attack thus provoked In addition to the usual loss of strength and energy and the presence of sugar in the urine which ordinarily marked her attacks, she suffered severely from pruritus vulvæ She had begun to exercise rigid care about her diet of her own accord, two or three days before consulting me There was, however, abundance of sugar in the urine As previously she had appeared to recover quickly under the use of small doses of calomel maintained for a few days, and a pill of extract of ergot of three grains, three times daily She was first placed upon the ergot, and, with the hope of getting the effect of the mercury, and still more marked effect upon the pruritus through arsenic, she was also given six drop doses of Donovan's solution three times daily As an external application, carbolized cosmolin was used She returned in two or three days, complaining of heaviness of the eye-lids and puffing of them There was slight but evident œdema of the lids The Donovan's solution was discontinued, and she was given a mixture of glycerine and citric acid, in the proportion of about eight to one, which she had previously used with benefit A week later she was not feeling much better, although the urine contained less sugar The pruritus still persisted

At this time the use of arsenite of bromine was begun In a few days all the symptoms were mitigated, and in two weeks she was feeling as well as usual The sugar entirely disappeared from the urine soon after the arsenite of bromine was employed

The next case was that of a man living in the central part of the State, who was unusually large and ponderous He came to the office complaining of lack of energy, weariness on slight exertion, and pain, particularly in one ankle, which some months before had been sprained His appetite was unusually good, but there was no great thirst He passed urine frequently, and very large quantities, filling an ordinary *pôt de chambre* full between ten at night and seven in the morning The urine was of a light amber color, clear, and contained a large quantity of sugar He had lost flesh, and was steadily losing, although still unusually heavy The loss of energy and strength was, however, most marked

His diet was carefully prescribed, and the arsenite of bromine in five drop doses, three times daily, was ordered A week later, no sugar could be found in the urine, and he said he thought he felt a little better generally The quantity of urine secreted was much less At the end of the second week he was feeling very greatly improved, his strength and natural energy had very considerably returned, and as he expressed it, he was getting back some of his old spring and elasticity of gait The pain in the ankle about which he first complained was nearly gone I had thought that that was only in part due to the sprain which his ankle had suffered, but was in part rheumatic, and accordingly at the end of the first week I gave him a pill of salacylic acid of two and a half grains, four times daily, in addition to his other medicine Steady improvement has taken place in this case, and no sugar has been detected in his urine after the first week of treatment

The next case was also that of a man residing some fifty miles from Chicago He was in the middle period of life For some months he had been losing flesh, having lost as much as twenty pounds in all He complains much of the quickness with which he becomes wearied when walking, especially in the legs below the knees His countenance presents a worn appearance, the color of the face is sallow, he urinates more frequently than natural, and copiously The first sample of urine shown me was slightly redder than natural At the bottom of the bottle there was a slight cloud of mucus, and over the sides and bottom numerous fine, beautiful reddish crystals of uric acid No albumen was found in the urine, but after filtering off the sediment the characteristic reaction of sugar was obtained

The treatment prescribed consisted in directions as regards diet, and the use of arsenite of bromine as in the last case Ten days later the urine appeared clear and contained no sugar He is still under observation, and although there is a little improvement in his feelings generally, only three weeks have passed since he was placed under treatment, and we cannot yet judge of the result

In these cases, I have continued to use the arsenite of bromine for some weeks after sugar had disappeared from the urine, and until the ability of the patient to bear a more varied diet had been tested In these cases, improvement, and decided improvement came promptly upon the use of the remedy

In regard to the diet, sugar and food containing it, and vegetables rich in starch were forbidden Bread was allowed only in the most moderate quantities Patients are always desirous of explicit directions in regard to diet, and I have found it convenient and useful to give them a written or pantagraphic copy of the following

ARTICLES OF FOOD FORBIDDEN

Bread, cake, pastry of all kinds, and food prepared with flour, cracked wheat, oatmeal, rice

Potatoes, turnips, beets, beans, corn, carrots

Prunes, grapes, figs, bananas, pears, apples, preserved fruits

Liquors of all kinds, whether distilled or fermented

ARTICLES OF FOOD PERMITTED

Soups, except those rich in vegetables, meat of all kinds, fish, eggs, oysters

Radishes, cucumbers, cresses, celery, lettuce, spinach, cauliflower, cabbage, tomatoes, oyster plant, onions, string beans, parseley, mushrooms, salads, pickles, olives, oil

Lemons, gooseberries, currants, sparingly of raspberries, strawberries, oranges

Milk, tea and coffee without sugar, but with glycerine in its place if desired

More or less variation can be allowed from this in mild cases, and in severe cases more rigor may be required, although it is difficult to hold a patient to a diet more rigid than the above

It is well known that in many cases of diabetes severe mental strain, sorrow or shock, seems to be the exciting cause of the disease I have observed this so often that I carefully inquire in all cases for it I am sure that in a large proportion of the cases that have come under my observation some such mental strain was present during the forming period of the disease In the first of the cases here mentioned business difficulties, added to still more perplexing and worrying family cares, were present during the time when flesh and strength were most declining In the second and third cases no such causes could be found In the last two business trouble was coupled with family sorrow In the fifth case the disease broke out just after the man's entire property had been lost in stock speculation If any mental influence played a part in producing the disease in the fourth case it was sorrow

In a very recent number of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION Dr Austin Flint, Jr, has published a list of cases of diabetes in which the disease had occurred in near blood-relations The fourth case that I have described might be added to this list, as her mother also suffered from diabetes, and finally died from the effects of carbuncles which complicated it

MEDICAL PROGRESS

ATROPINE IN POISONING BY MORPHINE —In the *Vratch*, No 44, 1885, p 733, DR J L JAVORSKY, of Tashkent, records the case of a strongly built and generally healthy midwife, aged 33, who attempted to destroy herself by taking at 1 A M about 30 grains of acetate of morphine and half an ounce of tincture of opium, *Pharm Rossicæ* (1 10) No nausea or vomiting occurred She fell asleep and awoke about 8 A M, looking very ill When first seen by the author (at 9 A M,) she lay speechless in a comatose state, with irregular slow superficial breathing, extreme myosis, her jaws being firmly pressed together A hypodermic injection of a fourth of a grain of apomorphine produced vomiting in fifteen minutes, after which the author succeeded in introducing into the patient's stomach about six ounces of strong coffee, with a large quantity of tannin The patient's state however, steadily grew worse At 11 P M the author began to inject one sixth of a grain of sulphate of atrophine every fifteen or thirty minutes Exactly one grain of the alkaloid was used up to 3 P M causing only a moderate mydriasis, but no improvement in the state of the patient, who lay now pulseless, breathing only five times a minute In spite of the apparent hopelessness of the case, the author went on injecting atropine, alternating it now with injections of tincture of musk And his energetic efforts were fully rewarded, about 9 P M the pulse became full, 90 a minute, and the breathing regular, 12 a minute At 11 P M the patient became conscious and asked for drink Having passed a quiet night, she rose on the next morning free from any danger The whole amount of atropine injected from 11 A M till 9 P M was 2 03 grains, that of tincture of musk, about 2 drachms Dr Javorsky thinks that his case strongly supports the theory of an antagonism between atropine and morphine (as upheld by Binz, Benzold, Henbach, etc, against Onsum, Camus, Bois, Knapstein, Dokhman, etc) [Dr R Neale's *Medical Digest*, sect 376 5, contains a series of cases of morphine-poisoning cured by atropine In the *Voenno Meditz Jurnal*, August, 1877, Dr Dobrokhotoff describes recovery after poisoning by 10 grains of morphine dissolved in 5 ounces of bitter almond-water, the patient, a weak woman, aged 24, was treated by atropine, administered both hypodermically and internally (altogether 2–5 grains), tincture of belladonna 30-drop doses, powder of musk in 1 gramme doses, etc In the *Vratch Vedomosti*, No 27, 1883, p 4162, Dr Rodzewicz publishes a recovery after 8 grains of hydrochlorate of morphine, the treatment consisting in enemata of coffee infusion, friction, electricity, wine, etc —*Rep*] —*London Medical Record*, March 15, 1886

SEPTIC AORTITIS —At the meeting of the Pathological Society of London, on April 6, 1886, DR F CHARLEWOOD TURNER showed three specimens of septic aortitis, and a microscopic section from a fourth case The first specimen showed the aorta extensively ulcerated, with undermining of the endarterium This was obtained from a female, aged 62, who had aortic incompetence, with hypertrophy and dilatation of the left ventricle, and granular kidney Microscopic section from one of the ulcers showed masses of micrococci in the deepest layer of the endarterium, at the base of the ulcer. The second specimen showed massive fibrinous coagula in the arch of the aorta; this was from a case of burn, fatal on the twenty fifth day, from suppuration and pyrexia. The third specimen was from a man who died of secondary hæmorrhage, from a wound of the left internal mammary artery. A fibrinous mass was found adherent to the aorta near the valves, with smaller fibrinous deposit on atheromatous elevations. A fourth case was mentioned, in which a similar lesion was found in a patient who died on the second day after primary amputation of the thigh. A microscopic section showed masses of leucocytes about the vasa vasis in the outer and middle coats, great swelling of the intima with corpuscular infiltration and exudation in the most superficial layer, and cloudy granular fibrin on the surface. The arterial lesion in all the cases was referred to the combined effect of structural disease and septic contamination of the blood, weakening the resistance of the tissues, and giving a grave character to the lesion. The difference in anatomical character between the lesion in the first case and in the other was attributed to the predominance of the former factor in the one case, and of the latter factor in the other. The vascular lesion in this specimen was regarded as indicating the starting of similar lesions of the pulmonary artery or venous trunks, and of thrombotic lesions of smaller vessels, associated with severe endocarditis.—*British Medical Journal, April 10, 1886.*

THE ASSIMILATION OF IRON.—Much difference of opinion has existed as to the method of action of ferruginous tonics. That their use is of advantage is a matter of daily observation, but many difficulties arise when we attempt to explain their mode of assimilation, for, apart from the fact that nearly if not quite all the iron so ingested is recoverable in the feces, we are met with the equally perplexing fact that iron salts when introduced into the blood stream cause toxic symptoms analogous to those induced by arsenic.

It has long been recognized that the iron entering into our structure is not normally derived from any inorganic salt, but from one or more complex iron-containing compounds existing in our food, and to be found typically, of course, in milk. BUNGE, in the *Zeitschrift fur physiologische Chemie* for 1885, records the extraction, from milk and from egg yolk, of this iron-containing organic compound, to which he gives the name of hæmatogen.

Hæmatogen markedly resembles hæmoglobin in molecular composition, though a still more close molecular resemblance may be traced between it and nuclein, if we ignore the absence of iron in the latter body. Bunge has extracted hæmatogen from the cereals and leguminosæ, and states very distinctly that our food "contains no inorganic iron combination, the iron present being in the form of complex organic compounds, which are built up by the vital activity of the plant, that in these forms the iron is absorbed and assimilated, and that from them the hæmoglobin originates."

Starting from these premises, Bunge's explanation of the value of inorganic iron salts in chlorosis is very interesting. The catarrhal state of the alimentary tract present in this condition favors a process of fermentation which induces the decomposition of hæmatogen. But when the inorganic iron salts are present, the sulphites evolved in decomposition attack such salts, with the result of sparing the hæmatogen. Confirmatory to this theory is the recent method of treatment of chlorosis, in which the disinfection of the digestive tract by the administration of small antiseptic doses of hydrochloric acid, after meals, has been found more efficient than the use of iron.—*Medical News*, April 17, 1886.

IN THE ACTIVE INGREDIENTS OF ERGOT.—In *The Practitioner*, of December, 1885, PROFESSOR RUDOLPH KOBERT, records a series of experiments with the active principles of ergot. Experiments with ergotinic acid, internally and hypodermically, on pregnant bitches, rabbits, cats, and sheep, show that it possessed no ecbolic power. Hence all aqueous extracts (as water dissolves only the ergotinic acid) are worthless. The *extractum secalis cornuti* of the German Pharmacopœia is an aqueous extract, and consequently is inert. Cornutine, is not to be confounded with the ergotinine of Tanret, as the latter is inert, produces uterine contractions both in animals that are pregnant and in those not. Sphacelinic acid is insoluble in water and must be given in an emulsion. In cats and dogs it provoked powerful labor-pains, followed rapidly by the birth of the fœtus. From this it is seen that in the ecbolic action caused by ergot both cornutine and sphacelinic acid take part. The latter acts directly on the uterus, while the former influences directly the centre for the uterine contractions, situated in the spinal cord. Professor Kobert had requested Gehe & Co., of Dresden to prepare an extract that contained both these active principles, which is called "extractum secalis cornuti cornutino sphacelicum Kobert." It does not keep well for longer than six months, but Professor Kobert emphasizes the statement that neither ergot itself, nor any of the numerous commercial European, and American, preparations that he has examined, retains their therapeutic powers for more than twelve months.—*New York Medical Journal*, April 17, 1886.

BENZOATE OF COCAINE.—SEÑOR ALFREDO BIGNON, in a paper read before the Lima Academy of Medicine, and published in *La Cronica Medica*, strongly recommends the employment of the benzoate of cocaine in preference to the hydrochlorate (the salt most commonly used), and to the salicylate and borate, with which he has also made experiments. He finds that the benzoate is extremely soluble, easily crystallizable, and retains the characteristic odor of coca itself. The antiseptic qualities of benzoic acid also are an additional advantage. Amongst other experiments, the anæsthetic effects of a 20 per cent solution of the benzoate were compared with those of a similar solution of the hydrochlorate in a case of epithelioma of the tongue, with the result that the effect of the former salt persisted for a much longer time than that of the latter.—*Lancet*, Feb. 20, 1886.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

Subscription Price, Including Postage.

Per Annum, in Advance	$5 00
Single Copies	10 cents

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible remittances may be made at the risk of the publishers by forwarding in registered letters.

Address
Journal of the American Medical Association,
No. 65 Randolph Street,
Chicago, Illinois.

SATURDAY, MAY 8, 1886.

THE PRESIDENT'S ADDRESS.

The address of President Brodie will be read with more than usual interest by those members of the Association who believe, despite certain recent pessimistic uttterances to the contrary, that the American Medical Association has been and still is a great power for good in this country. In the matter of medical education it must be regarded as a significant fact that one of the earliest reports issued by a Committee of the Association was one "Upon a Uniform and Elevated Standard of the Requirements for the degree of Doctor of Medicine," and that in every college in which the recommendations of this report have been adopted the results have been satisfactory, and these colleges are now looked upon as the leading colleges in the country. The first steps taken in this country towards the requirement of preliminary education for the study of medicine were taken by the American Medical Association. The first step towards the separation of the powers teaching and licensing was taken by the Association, and there is now not a State in the Union in which the medical men are opposed to such separation. And it was a committee of the Association that first defined, on a basis of religion and morality, the duties and rights of the physician.

Certain members of the profession who, for financial reasons, have repudiated the defined duties of physicians, have sought to shield themselves by saying that gentlemen require no written rules for behavior, and attempt to fortify their position by saying that there is no Code in England. That there is a Code of Ethics in England, and that there is a positive need for one may be seen by referring to almost any current number of the *British Medical Journal*. That it is a necessity in this country is seen by the fact that every State Medical Society in this country, with one exception, has embodied the Code of Ethics of the American Medical Association, or an allegiance to its principles, in its constitution, and in the one exception it was repudiated by a minority meeting. The citizen may say that the gentleman has no need for a written criminal code, but the criminal code is made for the protection of good citizens as much as for the punishment of the bad. In everyday life it is the criminal class, the anarchist, communist and socialist, who complain of the stringency of the laws—not good citizens, who recognize and fulfil the duties of man to man.

The outspoken assertions of the enemies of the Association, some of whom are members of it, that the day of its usefulness has past, that it has never been a scientific body, and that it was never intended as such, is easily disproved by consulting the volumes of its Transactions, and, Dr. Brodie's few selections from the titles of the papers that have been published in those Transactions is very apropos just now. That such assertions have been made seems to show positive ignorance of medical literature on the part of some members of the profession. There is scarcely a subject in the whole range of medical literature that has not at some time been treated of in papers published in the Transactions of the Association. So far from the day of its usefulness being past we may say that the sun of its usefulness has by no means reached its noon. The medical profession of this country will not be content to sit and see a few men arrogate to themselves all the learning, all the prestige, and everything else which goes to make the complete professional man. Our country, our customs, and institutions are too democratic to allow a few men to style themselves 'representative.'"

The American Medical Association is entitled to the hearty support of every member of the profession who has the good of the profession at heart—every one, in short, who has entered upon the study and practice of medicine as a science, an art, a great and noble calling. As to those who have come in to make it a trade, the Association is better off without them.

REFLEX ACTION AND INHIBITION.

Reflex action, says Lauder Brunton, is the effect produced by an impression made upon a sensory nerve, transmitted by that nerve to a nerve centre, and reflected or thrown back along a motor nerve in much the same way as we may imagine a string running over a pulley and transmitted in a different direction by the other end to produce a certain effect. And if we suppose the further end of the string to be divided into several strands, each of which is attached to a different object, and which may be, separately or together, affected by a pull on the nearer end of the string, we will have a still more clear idea of reflex action, since the impression on the sensory nerve may bring about various results, depending on the strength of the impression and the efferent nerve channel along which it is sent back by the nerve centre. While it is to be remembered that a reflex movement is one caused by the stimulation of an afferent sensory nerve, it should also be remembered that voluntary activity is excluded in a purely reflex act. Again, we must judge of what is going on in an afferent nerve by the effect produced in a central nervous organ, in the way of exciting or modifying automatic or reflex action, or in affecting consciousness, and here we are met with the difficulty of clearly distinguishing between the events belonging solely to the afferent nerve, and those of the central organ. We know that an afferent impulse passing along an afferent nerve may give rise to reflex movements, or may modify existing reflex or automatic actions, or may produce both effects at the same time.

The mistake of supposing that a sensory nerve is one which bears a *sensation* to a central organ should not be made. An impression borne along a sensory nerve may affect the nutrition of a tissue, or it may produce voluntary or involuntary motion—affect a voluntary or involuntary muscle. Under the involuntary muscles which may be affected may be classed the muscular fibres of the blood vessels, and movements caused in them produce the vascular changes (which may be greatly influenced by impressions made upon sensory nerves) which play an important part in nutrition and secretion. We know that stimulation of a nerve—and we may even say one fibre of a nerve—may cause reflex action under certain circumstances, and under other conditions give rise only to a sensation, and thus it is that an afferent nerve is frequently spoken of as a sensory nerve. It has been thought proper by some to classify the centripetal or afferent nerves as sensory, nerves of special sense, and reflex or excito motor nerves. And the division is perfectly proper, if we remember that no sharp line of distinction can be drawn in the way of supposing that the stimulation of a nerve of one class always produces a given and the same effect.

These considerations lead us up to the subject of transference of impressions. We have spoken of the cord passed over the pulley; let us now imagine that the further side of this cord is divided into several strands, the nearer side being single, and as we may have several results from pulling on the nearer side by reason of the subdivisions at the further end, so we may have a subdivision of the nearer side of the cord, while the further end is single, it is apparent that we can produce the same result by traction on any one of the strands of the further side. Or we may illustrate this by taking the example of the telephone bell and the transmitter. The person at the other end of the wire turns the crank and our bell rings, we place the transmitter to the ear, and though the other person may continue to turn the crank our bell no longer rings, though we receive in the ear the peculiar ticking sensation indicating that the crank is being turned. Irritation of the uterine nerves by the presence of a fœtus may cause vomiting, or it may cause paralysis, as in a case reported by Jolly about a year ago, which, while he attributes it to an hysterical condition, was nevertheless caused by centripetal irritation. The sphincter of the neck of the bladder and the muscular walls of the organ may be reflexly excited to contraction, and there may be reflex incontinence or reflex retention. The presence of ascarides in the rectum may cause incontinence of urine, and so long as the ascarides remain we may vainly employ drugs for the relief of the incontinence. About ten years ago Mr. Teevan reported a most interesting case of incontinence which obstinately resisted all treatment until a fistula *in ano* was cured.

In the consideration of the subject of reflex action it is of importance to remember that the sympathetic ganglia may act as independent reflex centres. Pigmentation may be excited reflexly by cutaneous irritation in the frog when the brain and cord have been destroyed. The uterus possesses within itself all the elements for a reflex arc, as shown by the fact that it can act independently by expelling the fœtus after the death of the mother. A very important contribution to this subject was the paper read by Dr. Woakes at the London meeting of the International Congress, in which he shows both the independence of at least the vaso motor portion of the sympathetic, and of its many connections with the cerebro spinal system. He speaks of the inferior cervical ganglion as a correlating nerve centre, which must mean that it is a reflex centre. It is a well known fact that in prize fights a blow on the neck will cause unconsciousness more quickly and with less injury than any other blow about the head. The explanation is that the shock to the cervical nerves is propagated to the inferior cervical ganglion, thence reflected to the vertebral artery as a wave of vessel dilatation, this wave is first appreciated in its peripheral branches, producing an instantaneous large accession of blood to them This accession of blood in the internal auditory branch of the vertebral artery causes sudden tension of the intra labyrinthian fluid and unconsciousness is the result

We know that irritation of a sensory nerve will cause dilatation of the vessels in the part supplied by the nerve, and vascular contraction in other parts of the body As a rule this takes place without affecting the action of the heart, but the irritation may be so strong, or applied so directly to certain nerves, that the heart is affected, as is the case when the fifth nerve is strongly irritated The fumes of ammonia, strong acetic acid or chloroform when passed into the nostrils of a rabbit may suddenly and completely arrest the heart Not without reason does Dr Brunton attribute the numerous deaths which have occurred when teeth were being extracted under chloroform to an arrest of the heart by irritation of the dental branches of the fifth nerve In the waking condition the irritative effect on the heart from the extraction of a tooth is counteracted by the coincident contraction of the arterioles all over the body, but under chloroform the two reflexes are not equally influenced by the drug, and the reflex action upon the heart may remain after that upon the vessels has ceased, in this case the heart stops because the blood drains away from the arteries into the veins—or to use the simile of Ludwig, the animal bleeds to death into its own veins

Closely connected with this subject of reflex action is the phenomenon called inhibition The inhibitory nerves may be defined as those nerves which modify, inhibit, or suppress a motor or secretory act already in progress (Landois), we may then say that inhibition is the modification or suppression, through nervous influence, of a motor or secretory act already in progress Probably the most familiar example is the stoppage of the heart by a blow upon the belly, or a blow upon the intestine of the frog with the handle of the scalpel This is nothing more than the suppression of the discharge of reflex action But some of the examples given under reflex action are really examples of inhibition It is only necessary to remember that a reflex act may be inhibited or augmented or that an augmented reflex action may be inhibited We see augmented reflex action in some cases of hysteria inhibited by pressure on the ovaries—another example of suppression of the discharge of reflex action There need be no especial difficulty in comprehending the subjects of reflex action and inhibition, though some physiologists have created sad confusion by unintelligible explanations

DRUGGING IN THE DARK

Such is the practice complained of by a correspondent of a contemporary, who finds that many physicians administer medicines in what seems to be a reckless and unscientific manner,—"Strychnine, arsenic, digitalis and aconite, are favorite remedies in all sorts of diseases" Used in this connection, we may very well object to the word *remedies*, in other respects we must agree with the complainant, adding that in America quinine seems to hold a high place in the list of drugs that are prescribed when there is some little doubt as to the diagnosis "Pills and mixtures containing many poisonous drugs are commonly prescribed, even when the practitioner is quite in the dark as to what the cause of the disease may be With some, the rule is, when the cause is unknown, to mix a great many poisonous stuffs, in the hope that one of them may hit the enemy A wiser and safer course would be, when the diagnosis is uncertain, to give, in the name of remedy, something that cannot possibly injure the patient"

We are not at present prepared to say whether or not this is a growing evil, though it is to be hoped that it is not Without doubt it is due to a great extent to a habit of making "snap" diagnoses, or of making no diagnosis at all When a diagnosis cannot be arrived at immediately, a physician will often prescribe what he thinks will do no harm, with the hope that he can get at the truth of the matter when he next sees the patient This may be due to a suspicion that the patient thinks that he should be taking medicine, since the idea of taking medicine whenever possible is deeply rooted in the minds of the laity, as shown by the enormous amounts of patent medicines used In very many cases, however, a certain combination of drugs is given because some of the symptoms point to a particular affection, and this combination has been prescribed for that affection by a teacher or some eminent physician This is evinced by the books containing formulæ, compilations of favorite prescriptions, and ready reference books which seem to find such a ready sale It is often very difficult to convince a patient that he does not need medicine, but it is just as important that the physician should know when *not* to give medicine as when to give it Possibly more "drugging in the dark" is done in renal and cardiac affections than in any others, on account of an apparent obscurity connected with them Much of this is due to the fact that the urine is often improperly examined, and frequently not examined at all Much useless, or even harmful drugging would be done away with if physicians would thoroughly acquaint themselves with the principles and significance of arterial tension—increased and decreased After all the whole matter is resolved into the one principle Never give a dose of medicine without a clear and definite object in view, and a definite idea of the result to be attained

PROFESSOR WILLIAM S FORBES

Dr William S Forbes, for several years Demonstrator of Anatomy in the Jefferson Medical College of Philadelphia, was appointed, at the meeting of the Board of Trustees held on April 26, to the Chair of Anatomy, rendered vacant by the resignation of Professor William H Pancoast Apart from the eminent fitness of Dr Forbes for the position, his appointment is a just rebuke to those who, about three years ago, instigated against him a most malicious prosecution and persecution Since he was appointed as Demonstrator of Anatomy in the Jefferson College Dr Forbes has held a high rank as a teacher of anatomy, and added to this his personal popularity with students is very great He brings to his new position the triple qualification of a thorough anatomist, a good teacher, and a surgeon of most excellent judgment

SOCIETY PROCEEDINGS

AMERICAN SURGICAL ASSOCIATION

Seventh Annual Session, held in the Reading room of the Army Medical Museum, at Washington, April 28, 29 30 and May 1, 1886

Thursday, April 28—Morning Session

The meeting was called to order by the President, Moses Gunn, M D, of Chicago, who delivered his Annual Address, of which the following is an abstract

Custom, if not organic law, requires the President to open the proceedings by a more or less formal address My immediate predecessor, in his address a year since, suggested that either a résumé of the progress of surgery for the previous year, or some special scientific subject, should constitute the subject matter of the President's address I propose to comply with the spirit of this suggestion, and shall indulge in a few thoughts on

CERTAIN POINTS IN THE PHYSIOLOGY AND SURGERY OF MOTOR, SENSORY AND MOTO-SENSORY OR COMPOUND NERVES

Previous to the investigations of Magendi and Bell, no clearly defined effort had been made to differentiate the motor and sensory nerves It remained for these investigators to clearly establish the fact of the motor qualities of the anterior roots and the sensory qualities of the posterior roots With this also came the idea that this difference was intrinsic, due to peculiarities in the anatomical and physiological organization of the nerve fibres This appears to have been the idea generally entertained Is this a fact, or is the difference to be found in extrinsic conditions, viz, the anatomical organization at either end of the nerve, the nerve to trunk being simply a conductor of a form of force? Upon the facts of the case depends the possibility of satisfactory results in the section and physiological reunion of divided compound nerves and the grafting of one compound nerve upon another where there has been so great a loss of the trunk of the nerve as not to permit the approximation of the distal and proximal portions of that nerve Success in achieving satisfactory results by such operations or a uniform lack of success must afford a tolerably reliable answer to these interrogatories, much more reliable than experiments on some of the inferior animals Experiments on animals require severe scrutiny, or they may mislead Some of the experiments on animals were then referred to Philipeau and Vulpain divided in dogs the pneumogastric and sublingual nerves, and united the central end of the pneumogastric with the distal end of the sublingual They also divided the lingual branch of the fifth nerve and the sub lingual, uniting the central end of the lingual branch of the fifth nerve to the peripheral end of the sub lingual and tearing out the central end of the sub-lingual The result of these experiments was that after a time motion and sensation was restored Other similar experiments were cited

In April, 1880, Dr E P Davis made for the speaker the following experimental operation Under an anæsthetic, the axillary plexus was exposed The median was severed after its bifurcation and also the ulner and radial The outer head of the median was united to the ulnar The inner head of the median was united to the radial in the same way At the end of ten days, the dressing was removed and complete paralysis of motion and of sensation found In four weeks this began to disappear and later a perfect condition of motion and sensation was observed By this operation the distal portion of the median was left entirely without nervous supply, and yet there was no paralysis of muscles or integument supplied by this portion of the nerve Latter investigation showed that in the dog and certain other animals there is an anastamosis of fibres between different nerves, forming an indirect route for the conduction of nervous force

Nerve suture in man has become a recognized operation both as a secondary and primary procedure It must be concluded from experiments that motor, sensory and trophic powers depend not on the nerve itself, nor on a difference of nerve force, but on the organism at the end of the nerve itself Professor Stephani is reported to have succeeded four times in uniting the distal end of the median with the proximal end of the musculo spiral, and the distal end of the latter with the proximal end of the former Immediately following the operation was complete paralysis and atrophy, but in the course of six or eight months, there was not only restoration of muscular power, but harmony of action to an extent sufficient to permit the animal to run, but perfect extending power was not realized

The intergrafting of a section of a nerve of an inferior animal to replace extensive loss of nerve structure will probably be of too uncertain success to constitute a standard operation, but can the grafting of the distal end of a nerve in such a case upon the side of or into the trunk of an adjacent nerve secure to it a supply of nerve force? Experiments made by Kawa would indicate that such might be the case To establish this point experiments on dogs are valueless on account of the free anastamosis We must look for the solution of this question to the rare opportunities met with in the course of surgical practice to institute experimental operations on man A case has been reported by Després, where there was such extensive destruction of the median nerve as to preclude the possibility of approximating its ends He therefore engrafted the distal end of the median with the trunk of the ulnar Fifty-four days after the operation the functions of the parts supplied with the medial nerve were partially restored

On December 1, the speaker had occasion to resect the right ulnar nerve in the removal of a neuroma in a male patient aged thirty six years The distal portion of the divided nerve was grafted to the trunk of the median The sheath of the median was removed and the broadly chamfered end of the ulnar laid in contact with it and secured by three fine cat gut sutures Immediately after the operation there was complete paralysis of the parts supplied by the ulnar On the eighteenth day there was a slight return of sensation along the ulnar side of the ring finger and there seemed to be some contraction of the flexor carpi ulnaris Four months after operation, the patient could feel a slight touch on the ring finger, no sensation to touch in the little finger, but an increased warmth in it He can adduct the hand with considerable vigor, but as yet has no power over the terminal phalanges

The positive evidence which these two cases furnish at so early a date, warrants further effort in this direction, and corroborates the other evidence of the correctness of the postulate, that the function of a given nerve depends entirely upon the machinery at its ends and not upon any intrinsic quality

Favored by your kindness manifested one year ago, it is my duty to preside over your deliberations in this seventh session of the American Surgical Association We have come together to make and renew friendships and to impart to one another and to the surgical world the results of our experience, investigation and thought

As to the new friendships which shall ensue, let us hope that they will equal the old, and in the renewal of the old, let the grip be firmer and the heart still warmer, while in the spark which shall fly from the clash of thought let there be only the fire which purifies the subject, enhances esteem and cements friendship So shall our discussions be honorable to our selves and profitable to surgical science

A proposition to form a

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS

was discussed, and referred to a committee of three to report Thursday morning, the committee consisting of Drs J Ewing Mears, Wm T Briggs and Christopher Johnston

---

AFTERNOON SESSION

DR CHRISTOPHER JOHNSTON, of Baltimore, read a paper entitled

DIAGNOSTITIAL LAPARATOMY

This operation is as ancient as our race, but in early times was always practiced on the cadaver The first operation on the living subject was probably performed about the year 1600 The rapid advance of abdominal surgery now demands the attentive consideration of surgeons, and requires the expression of opinion as to the position of the line limiting interference in certain classes of cases The question in abdominal lesions arises, how shall the seat of the pathological change be reached? The answer is laparotomy, which makes the diagnosis positive in cases of doubt and is preliminary to other operations which may be required If the surgeon has no right to refuse to give aid to a fellow creature becoming asphyxiated from obstruction in the air passage, has he the option of refraining from surgical interference when the prima viæ are obstructed in their functions? The answer to this question hangs first upon the diagnosis, sometimes upon the record of the past, and not infrequently upon the wise boldness of the surgeon The propositions then are, first, that for abdominal surgical affections all possible operations ought to be attempted after the establishment of a precise diagnosis, and second, that when a just diagnosis cannot otherwise be reached it may and ought to be eked out by an exploratory incision The mortality of abdominal incision without complication is low A great consecutive mortality following a surgical procedure in no wise determines the want of value of the operation, while most cases recovering are to be considered a certain gain

The record with regard to diagnostitial laparotomy is very brief, for as a rule, when the surgeon approaches the case the diagnosis is already nearly positive The gravity of the operation is largely determined by the time at which it is performed The abdominal incision intentionally diagnostitial is fraught with so little comparative ill consequence that its high value or necessity may be fairly claimed as an established and proper aid to diagnosis Of all operations involving laparotomy, those involving the uterus and its appendages probably fill the largest space Next we have those involving the alimentary tract

Besides being a justifiable operation, abdominal incision becomes the bounden duty of the surgeon in a great variety of instances

When is exploratory laparotomy called for? It should be stated that to a certain extent every laparotomy is diagnostitial Without establishing unnecessary groups, two great classes in which exploratory laparotomy is demanded or permissible are to be recognized First, all sorts of cases in which the diagnosis cannot be made without its aid Second, all those cases in which, a diagnosis having been made, no definite line of operation can be marked out and no abandonment of active measures be entertained or justified Laparotomy holds the key in all cases of doubt as to what is the matter and what is to be done In intestinal cases, the early operations are those which save life the oftenest, but abandonment ought not necessarily to follow delay in invoking the surgeon's aid

Dr A Vanderveer, of Albany, said that there was no doubt that experience showed us that simple incised wounds of the abdomen without injury to the abdominal organs will usually heal without difficulty, even if left to themselves The mortality is very slight indeed Even when the injury is more serious recovery often follows The cases which give anxiety are those in which the bowel is injured and its contents escape into the abdominal cavity These die inevitably if nothing is done In these cases laparotomy should be performed This operation is often opposed by the friends of the patient and often by the attending physician, and much is to be done in the direction of teaching the profession and the public the importance of early operation in these cases Cases were cited of gunshot injuries of the intestine and of rupture of the intestine produced by external violence in which the operation might have saved life if it had been permitted by the friends of the patient The operation, as a rule, will not be allowed until the patient is in collapse, and it is then too late The masses must be educated to the necessity of laparotomy in the cases referred to This operation should be done more frequently in the future than in the past As regards the mode of operation, the incision in the median line is by far the best In some cases it would be impossible to reach the seat of disease by any other incision In the closing of the wound some recommend several lines of sutures uniting the different layers of tissue separately He does not believe that this is any advance on the old method of using sutures including all the layers of tissue Where there is great distension of the bowel in intussusception the discovery of the seat of trouble is greatly facilitated by a procedure which he had seen Tait adopt in such a case He opened the distended coil of intestine, permitted the gas to escape, and then closed the opening with sutures

Dr J Ewing Mears, of Philadelphia, in considering diagnostitial laparotomy, would arrange the subject in this manner First, external manipulation, second, internal examination where this is possible, third, aspiration, and finally laparotomy Laparotomy is much the most serious of all these methods In this discussion the subject of laparotomy as a means of treatment does not call for consideration The more experience he gained the greater was his conviction that the abdominal cavity should not be opened without due consideration Death is a severe penalty to pay for the perfection of the diagnosis The tendency at the present time seems to be in favor of opening the abdominal cavity rather than cultivating that essential skill by which the diagnosis may often be made without resorting to operation Tait's assertion that opening of the abdominal cavity is a matter of very little consequence has led many of the younger members of the profession to perform this operation without due consideration Having exhausted other methods of diagnosis, he thought that if the patient's life depends upon it, we should open the abdomen In intestinal obstruction the abdomen should be opened, many lives have been lost by want of courage on the part of the surgeon There is no question as to the duty of the surgeon in the case of gunshot wounds of the intestines

Dr Charles T Parkes, of Chicago, said that the paper insists upon the necessity of exhausting all other methods of diagnosis before resorting to laparotomy He thought that the size of the incision makes very little difference so far as the final recovery is concerned, but where the incision extends above the umbilicus, recovery is slower and attended with more inconvenience In the cases of laparotomy which he had seen where post mortem followed, there was no evidence that the abdominal incision had anything to do with the fatal issue In regard to the operation in cases of intestinal obstruction where the exhaustion is extreme, several years ago, he was called to see a case of nine days' standing The patient was in a state of extreme collapse, was put to sleep and the abdomen opened A small cyst was felt immediately beneath the fingers It ruptured and a quantity of offensive pus escaped into the abdominal cavity This patient recovered The abdominal opening should be made in the median line He thought that he had seen cases in which death has followed from the fact that the incision was not thus made, the surgeon being satisfied with enlarging the original wound In regard to closure of the wound, he considered the simple suture going through all the tissues the best Where there is much distension of the intestine the bowel should be opened He did not favor the use of the exploratory needle In two instances he had seen extravasation of fecal matter through such punctures

Dr McLane Tiffany, of Baltimore, referred to four cases of what he believed to be intestinal obstruction Two refused operation, and both of these died, two accepted, and one of these recovered The case that died was that of a woman aged 73 in whom the obstruction had lasted seven days The intestine was enormously distended, and in the examination ruptured with the escape of the gas After this it was extremely easy to find the seat of constriction He thought that shock would be less if the intestine is emptied He agreed with the speaker as to the great value of laparotomy as a diagnostitial operation It is not possible for any human being to recognize through the abdominal walls the manifold conditions of the organs present In regard to pistol wounds of the abdomen, it frequently happens that the intestines escape injury, and in these cases it is a question when the operation should be done The opening of the abdomen will probably not do much harm It is also very desirable that there should be in hospitals special rooms devoted exclusively to this class of operations

Dr J Ford Thompson, of Washington, reported two cases of laparotomy for the purpose of diagnosis A woman aged 35 years had the history of an abdominal tumor lasting for several years It presented the appearances of an ordinary ovarian tumor with the exception that it had two sinuses communicating externally After frequent examinations by various surgeons it was decided to make an exploratory operation One of the sinuses was traced back to the peritoneum without reaching any satisfactory explanation of the tumor The peritoneum was then opened and the finger introduced, but no tumor in the cavity could be felt Towards the abdominal wall a mass apparently imbedded in the tissues could be distinguished The wound was closed and the patient recovered from the operation The patient subsequently died, and the post mortem showed that the tumor was an enlarged spleen which had fallen down below the umbilicus and become attached to the abdominal wall

The second case was one of apparently freely movable tumor in the right hypochondriac region It proved to be a carcinoma involving the transverse colon There was also an attachment of the growth to the liver The abdomen was closed, the patient recovered from the operation, and is still living

Dr Johnston, in closing the discussion, said that there is a certain amount of hesitancy on the part of surgeons in regard to operating in cases of abdominal injury, on account of the people and on account of juries To overcome these objections it is necessary to educate the public to the true state of affairs In those cases where the bowel is opened laparotomy leads us to the seat of disease, and if anything can be done we are then able to do it He was happy to find his opinions supported by so many of the able minds of the profession

---

Thursday, April 29—Second Day

Morning Session

The President in the Chair

Dr Harold C Ernst, of Jamaica Plains, Mass, read a paper entitled

A CONSIDERATION OF THE BACTERIA OF SURGICAL DISEASES

After an extended description of the various bacteria met with in wounds, chronic abscesses, erysipelas and other surgical affections, and an account of numerous experiments on animals, with an exhibition of specimens in culture mediums and under the microscope, the author presented the following conclusions

1 The experiments conducted over so long a time with the successful inoculation at the end of that time, indicate very plainly the retention of pathogenic powers of these organisms indefinitely

2 Their permanence of form is also well established

3 In order to obtain either a modification of their pathognomonic forms or of their morphological properties—if this is possible at all, some different methods of investigation must be used than those which have hitherto been employed

4 The probabilities indicate that work in this direction is not likely to be successful

5 So far as the experiments go they tend to show that no form of the suppurative process in man is unattended by bacteria, and that the inoculation in the lower animals of pure cultures of these bacteria is followed by more or less acute and extensive suppuration

6 The above conclusion is supported by the evidence of all workers in this field of research

7 That a number of different clinical phenomena may be produced by the same organism, all of these phenomena, however, coming under the general head of the inflammatory and suppurative processes

8 That the difference in the results produced by the same micro organism in different individuals depends upon influences outside of the bacteria themselves

9 That these differences are the result of differences in the amount of the infectious material received into the system, and of the locality or lesions by which it gains access, and also by variations in the individual condition—the personal equation being a very large factor in making up the sum of any results in bacteriological work

Dr S W Gross, of Philadelphia, said that the observations made by Dr Ernst confirm those made by other observers, showing very conclusively that the suppurative processes are dependent upon vegetable organisms The most interesting part of the paper is that which relates to chronic suppuration The author has been, he thinks, the first to show that chronic suppuration is due to the same micrococci as the acute form

Dr J S Billings, of Washington, said that a mere verbal statement of the difficulties which attend these experiments gives no definite idea of the difficulties encountered in this work It is only by personal experience that they are learned The methods now employed are much more satisfactory than those in use some twenty years ago One of the difficulties in considering the probable relation between cause and effect in this work is that there seems to be no relation between the number of micrococci present and the effect produced A second difficulty is that we are by no means sure of the specific differences between these various forms of microscopical organisms As we cultivate bacteria in different media we find a change in their form It is perhaps possible that they may gradually change by alteration of the medium, of its chemical composition or of its temperature In connection with this subject, a study of the chemical conditions under which these organisms exist is necessary It is very desirable that the practical surgeon should have at his disposal the means of determining the presence of these organisms in any given case

Dr N Senn, of Milwaukee, said that he was in full accord with the conclusions of Dr Ernst, and did not intend to criticise what he had said He desired to say a few words in regard to the conditions which predispose to the action of germs introduced into the body The object of the surgeon should be, in the first place, to prevent the introduction of these germs, and in the second place, to secure innocuity to the infection by preventing the occurrence of predisposing causes The first predisposing condition is found in an unusual arrangement of the capillary circulation This is well illustrated in osteo-myelitis In this affection the germs are found in greatest abundance in those situations where the anatomical relations of the vessels predispose to engorgement and localization of the microbes, this is in the large vessels about the centres of ossification in the epiphyses of bones The second predisposing influence is traumatism The germs of osteo myelitis may be present in the body for a long time and produce no effects until the occurrence of traumatism, as a fracture, favors the localization of the microbes

Dr David Prince, of Jacksonville, Ill, exhibited a diagram and described a form of room where

A STERILIZED ATMOSPHERE

could be secured for the patient by means of air treated with corrosive sublimate and forced through a tube opening immediately above the seat of operation

The report of the committee appointed to consider the proposition for the organization of a

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS,

offered at the meeting of Wednesday by Dr C H Mastin, of Mobile, was called for The following is an outline of the main points of the proposition In view of the fact that there are a number of special medical organizations now in existence in the United States, each having for its aim the advancement of the special department of medicine for which it was organized, and since the members of the said special societies are the representatives of the profession in America, many of whom are at the same time members of several of these special societies, attendance at the meetings required separate trips from home, often with much loss of time Therefore it appears necessary that some arrangement should be made with the different societies as to an uniform place and time of meeting

The plan proposed is to unite the following named Associations into a Congress to be called "A Congress of American Physicians and Surgeons" The American Surgical Association, the American Ophthalmological Association, American Otological Association, American Neurological Association, American Laryngological Association, American Gynæcological Association, American Dermatological Association, American Climatological Association, and the American Clinical and Pathological Association The plan of organization embodies the following Each society is to elect its own officers, hold its own sessions apart from the others at the time and place of meeting, publish its own transactions and do all other acts which by virtue of its constitution and by-laws it has the inherent right to do, thus preserving its own autonomy

The Congress to be composed of these special societies when in convention and its meetings to be held in the City of Washington, the constitution and by-laws of the Congress to be formed by a committee of like number from each special society, the opening session of each annual meeting of the Congress to be devoted to such general business as may pertain to the interests of the Association as a whole The Congress being presided over by a President elected annually and who must deliver an opening address on the first day of the session The President to be chosen by a nominating committee of one from each special society, the Presidents of the special societies to be Ex-Officio Vice Presidents of the Congress Membership in the Congress is to be acquired only by virtue of fellowship in one or another of the special organizations The other officers to be elected as determined upon by the convention in session

We disclaim any intention of offering an obstacle or opposition to any other organization in America We propose simply a plan of uniting into one great body the already existing special societies, and we do so from an honest conviction that such a union will prove of inestimable benefit to them individually and collectively

The committee appointed to consider this proposition, reported that they viewed with great satisfaction the perfection of a plan through which the meeting of the above named societies at the same time in Washington may be accomplished, and recommended the adoption of a resolution that a committee of five be appointed to confer with committees from other special organizations to arrange details, and to report at the next annual meeting of the Association The resolution was adopted

The President stated that he would name the committee on Friday

Afternoon Session

Dr N Senn, of Milwaukee, read a paper entitled

THE SURGERY OF THE PANCREAS AS BASED UPON EXPERIMENTS AND CLINICAL RESEARCHES

The following conclusions were presented

1 Restoration of the continuity of the pancreatic duct does not take place after complete section of the pancreas

2 Complete extirpation of the pancreas is invariably followed by death, produced either by the traumatism, or gangrene of the duodenum

3 Partial excision of the pancreas for injury or disease is a feasible and justifiable surgical procedure

4 Complete obstruction of the pancreatic duct, uncomplicated by pathological conditions of the parenchyma of the organ, never results in the formation of a cyst

5 In simple obstruction of the pancreatic duct the pancreatic juice is removed by absorption

6 Gradual atrophy of the pancreas from nutritive or degenerative changes of the secreting structures is not incompatible with health

7 Physiological detachment of any portion of the pancreas is invariably followed by progressive degeneration of the glandular tissue

8 Extravasation of pancreatic juice into the peritoneal cavity does not produce peritonitis

9 Crushed or lacerated pancreatic tissue is removed by absorption, provided the site of operation remains aseptic

10 Complete division of the pancreas by elastic constriction is never followed by restoration of interrupted anatomical continuities

11 Limited detachment of the mesentery from the duodenum, as required in operations upon the pancreas, is not followed by gangrene of the bowel

12 In all operations upon the head of the pancreas the physiological attachment of the peripheral portion of the gland should be maintained by preserving the integrity of the main pancreatic duct

13 Partial excision of the splenic portion of the pancreas is indicated in cases of circumscribed abscess and malignant tumors, in all cases where the pathological product can be removed completely without danger of compromising pancreatic digestion or of inflicting additional injury upon important adjacent organs

14 Ligation of the pancreas at the point or points of section should precede extirpation as a prophylactic measure against troublesome hæmorrhage and the extravastion of pancreatic juice into the peritoneal cavity

15 The formation of external pancreatic fistula by abdominal section is indicated in the treatment of cysts, abscess, gangrene, and hæmorrhage of the pancreas due to local causes

16 Abdominal section and lumbar drainage is indicated in cases of abscess or gangrene of the pancreas, where it is found impossible to establish an anterior abdominal fistula

17 Through drainage is indicated in cases of abscess and gangrene of the pancreas with diffuse burrowing of pus in the retro peritoneal space

18 Removal of an impacted pancreatic calculus in the duodenal extremity of the duct of Wirsung by taxis or incision and extraction, should be practised in all cases where the common bile duct is compressed or obstructed by the calculus and death is threatened by cholæmia

19 In such cases, the principal source of danger, extravasation of bile into the peritoneal cavity should be avoided by preliminary aspiration of the dilated bile ducts, accurate closure of the visceral wound with fine silk sutures and absolute physiological rest of the organs of digestion, during the time required in the healing of the visceral wound

Dr Chas T Parks, of Chicago, read a paper supplemental to his paper of last year, reporting

TWO CASES OF CHOLECYSTOTOMY,

both of which ended fatally

Case 1, was that of a woman who had suffered with gall stones for six years The attacks of colic occurred as frequently as every week Operation was decided upon The gall bladder was found contracted and reached with difficulty Forty three calculi were removed

Case 2 was that of Mrs H , who for the past two years had suffered with attacks of pain lasting four or five days of each week There was jaundice and other symptoms of the obstruction of the flow of bile There was enlargement of the liver The operation showed that the gall bladder contained no calculi, but that the obstruction was caused by a body outside, which seemed to be an encysted calculus pressing on the duct The gall bladder could not be found The patient died within twenty-four hours, and the post mortem revealed the shrunken gall bladder with the induration, which contained a gall stone, pressing on the duct

Dr W H Carmalt, of New Haven, Con , related a case in the same line with these reported by Dr Parks The patient, a woman 37 years of age, had suffered for several years with indefinite dragging sensations in the right hypochondriac region This incapacitated her from performing her household duties In 1883, she stated that she had been operated on in Berlin for gloating kidney, and in evidence showed a large scar in the lumbar region She also stated that three weeks after operation, as a result of violent sneezing, the organ had become loosened She went to him for the purpose of having the kidney removed Examination showed the abdomen to be exceedingly pendulous The tumor was rounded, and could be readily grasped between the fingers, it was very movable It was decided, after keeping the woman under observation for some time, that the tumor should be removed An incision was made just external to the recuts muscle over the tumor When it was exposed, it was at once evident that it was not the kidney Further examination showed it to be a dilated gall bladder An aspirator was introduced, and four ounces of inspisated mucus drawn off The needle revealed the presence of a hard body Manipulation brought the gall stone up to the most accessible part of the bladder, and securing the gall bladder by two ligatures, he opened it and removed a stone as large as the end of his thumb Four other calculi were found After thorough cleansing the gall bladder was closed with a continuous cat gut suture The wound in the peritoneum was closed in the same way The muscles were united by interrupted silk sutures, and a continuous catgut suture was used for the incision in the skin The patient recovered without difficulty and is now able to attend to her duties, feeling better than for a long time

The report of

A CASE SIMULATING AND BELIEVED TO BE ABDOMINAL PREGNANCY AT FULL TERM—LAPAROTOMY, CÆSARIAN SECTION, AND REMOVAL OF A LIVING CHILD WEIGHING SEVEN POUNDS,

by Dr John S Coleman, of Augusta, Georgia

In the absence of the author, the paper was read by the Secretary

On February 27, 1886, the writer was requested to see B A , colored, primpara, twenty-four years old The attending physician believed her to be the subject of extra-uterine pregnancy She thought herself at the end of gestation, and for three days had suffered with pains which were quieted by the administration of laudanum The entire abdomen was greatly distended, particularly in the upper portion Vaginal examination showed procidentia, the os projecting three inches beyond the labia. The os was sufficiently patulous to permit the entrance of the index finger. Rectal examination gave negative results. Palpation and auscultation showed the position of the fœtus to be dorso anterior and obliquely transverse. Placental bouffle could not be heard. The abdomen was so large and the fœtal heart sounds so distinct that the writer also concluded that the case was one of extra uterine pregnancy. The patient was examined by a number of surgeons, who agreed in the diagnosis. The history and the symptoms indicated that the patient was at the full term of pregnancy, and it was decided that immediate surgical interference was imperative.

On March 31, the patient was operated upon. An incision six inches in length was made in the linea alba. The tumor exposed much resembled the pregnant uterus. The incision was extended above the umbilicus uterus, and it was positively determined that the case was one of uterine pregnancy. The uterus was drawn forward, and its anterior wall cut through. He had not conceived it possible for the uterine tissue to be prolonged from the epigastrium to three inches beyond the vaginal notch. A vigorous female child *weighing seven or eight pounds* was removed, the hemorrhage was not great, the placenta was removed without difficulty, the incision in the uterus was closed with deep and superficial catgut sutures, the peritoneum was closed with a continuous suture, and the abdominal wall with hair-lip pins and superficial sutures. Antiseptic precautions were adopted throughout the operation. Septicæmia developed—the patient living four days.

At the autopsy there was found no decided injection of the peritoneum, two moderate sized clots *were found on the peritoneum, the cavity contained* neary a quart of bloody serum. The uterus was one-half its former size, measuring from fundus to externum twelve inches, the cervix measured six inches, the wound was found gaping throughout.

The author then gave an extended view of the literature of the subject, and related similar cases by various operators.

To the paper was appended a letter from Mr. Lawson Tait, endorsing the performance of abdominal section in the above case, and asserting his strong objections to operations looking to the breaking up of the fœtus. He thought that a preferable operation in the present case would have been the Porro operation. This would probably have been successful both as regards the mother and the child.

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT.)

Another Lander Institute—The Peabody Industrial Buildings—Inquest on a Woman who died of Hydrophobia—The Wolf bitten Russians.

Another Lander Institute has been opened in London, in which fifty two machines are to be seen, the whole arrangements being under the charge of a medical man. The treatment is throughout perfectly painless. Gentleness is, as a rule, the last idea one associates with machines, weights, levers, and pulleys, but by Lander's mechanical methods it has been fully secured. Massage applied by human hands would at first sight appear to be superior, but experience is proving that the advantage rests with well regulated machines. The hand of the rubber becomes tired, and thus there is an almost constant variation of force, whereas the mechanical power continues its gentle movement without other increase or diminution than those intentionally produced by altering the adjustment of weights. The passive exercises are arranged on a similar principle to that of the massage, and are worked by an engine. The patients work the active ones themselves. Some of the machines look odd enough in their action upon the human frame. That called "vibrating" is intended for shaking the various parts of the body. Shaking of the back between the shoulder blades is to give a specific effect upon the action of the heart, making the contractions less frequent and more effective. Nervous palpitation is successfully treated in this way. The kneading machine is so arranged that the pressure of two rollers produces a kneading action. Cases of pain in the back are treated by means of a kind of couch, through the back of which two padded wheels roll along both sides of the spine. If necessary, one wheel can be raised higher than the other, and as with all the machines, the pressure can be adjusted to a nicety by the arrangement of the weights upon the lever. The friction machine for the hands and feet resembles a miniature tread mill. It is useful in cases of rheumatic affection in the extremities. There are machines for shampooing the legs and the arms, assisting defective circulation and developing the muscles. The saddle and side saddle are both passive, and are found efficient substitutes for horse exercise. Small india rubber hammers form of other machines the active portion for increasing the circulation inside and outside the scalp, or any portion of the body in which the muscles need stimulating. Sciatica has been cured, it is said, by applying these hammers to the region of the sciatic nerve. They can be raised or lowered so as to act upon any portion of the body.

From a recent report upon the cost and sanitary status of the Peabody Industrial Dwellings it appears that the average cost of the buildings erected by the trustees is £60 10s 2d per head, so that a family of four persons costs a capital sum of £242 to house, which is a much larger amount than is ordinarily expended by the speculating builder. As regards the acquisition of land, the trustees have been singularly fortunate, three sites having been sold to them by the Metropolitan Board of Works for a sum which leaves a clear loss of £235,808, or more than a quarter of a million to the ratepayers. Taking land and buildings together, a family of four persons costs £510 to house. A warning note is struck in the statistics of the mortality among the inhabitants of these dwellings. In the year 1884 the deaths per thousand of the total population of the Peabody buildings were 19.10, as compared with 20.34, which was the London rate, but in 1885 the death rate in the dwellings was actually *one* decimal point above the general rate of mortality in London, the figures being 19.60 in the Peabody buildings, and 16.59 for the whole of the metropolis. It would seem from these facts that, while the death rate of London has declined steadily since 1876, the death rate in these model dwellings has increased, since 1881, from 17.22 to 19.60 per thousand. It is considered that this increase is most probably due to the increased density of the population.

An inquest, which is likely to attract considerable attention in the medical world, was held in London on the body of an old woman who died of hydrophobia. Many cases of hydrophobia have been quoted in which, as far as any one knew, the deceased had never been bitten by a mad dog, but it was always possible that they might have been licked on some scratch or sore by a dog who was in an early stage of hydrophobia, or that they might have been slightly bitten, but had thought the matter of so little consequence that they did not mention it to anyone. In the present case the hypothesis is scarcely possible. The deceased had lodged for years in one house, and for months had not gone out. She had a dog to which she was very much attached. This dog is a very old one, being, it is said, seven or eight and twenty years of age. It, like its mistress, never went out of the house except into the back yard. It can never have escaped, for its mistress, who lodged up stairs, always carried it down, waited for it, and carried it up again. The dog has not been mad, and is still alive and in good health and there is no sign of a wound, scratch or sore on the corpse by which the virus could have been communicated. A more perfect test case could hardly be imagined. The two medical men who attended the deceased in her last illness declare that it was a distinct and undoubted case of hydrophobia, but in that case the assumption that hydrophobia can start *de novo* without the intervention of a mad dog, appears almost inevitable. So important did the coroner consider the case that he has adjourned it until next month, in order that it might be seen whether the dog continued in good health until that time.

Another of the wolf bitten Russians has died of hydrophobia whilst undergoing treatment on the Pasteur system to combat the development of the malady, and this unfortunate event, according to M. Rochefort—who entertains an unfavorable opinion of M. Pasteur and his theories—coupled with the other death, goes to prove that the inoculations made kill patients by communicating hydrophobia instead of preventing its appearance. As for the remainder of the Russian peasants who have left Paris for their own country, very likely, observes the *Intransigeant*, they will die when, or before, the get home, but the matter will be hushed up, or their deaths attributed to some other cause. When one reads criticisms of this kind one can well understand M. Pasteur's complaints about the attacks made on him in M. Rochefort's organ, and by certain members of the Paris municipality who share the antipathy that paper displays for him and his system. Whatever may be one's opinion concerning the value of the discovery he has made, it is quite certain that the distinguished savant has but one earnest desire, to benefit his species, and he ought not to be treated as a charlatan. As for his Russian patients, it is perhaps regretable, in the interest of science, that they were not kept, as he wished, another month or so in Paris under his personal inspection. During the present year forty-one cases of rabies have been reported in London, and one death from hydrophobia due to inoculation by dog bite.

G. O. M.

DOMESTIC CORRESPONDENCE

CARBOLIC ACID INJECTIONS IN HÆMORRHOIDS AND CARBUNCLE

To the Editor of The Journal.

Dear Sir:—Through the columns of The Journal permit me to place myself on record as the first to discover, and put in practice, the hypodermic administration of carbolic acid for the cure of hæmorrhoids, carbuncles, poisonous bites, small tumors, and foul and ill conditioned ulcers.

In 1875 I made my first injections in hæmorrhoids, carbuncles and snake bites, with most wonderful success. I continued the treatment for six years with uniform and unvarying success, and thus having satisfied myself of the value of this treatment, in 1881 I read a paper on the subject before the Texas State Medical Association, then convened in the city of Waco, Texas. This paper was entitled "The Hypodermic Administration of Carbolic Acid for the Cure and Removal of Foul and Ill-Conditioned Ulcers, both Internally and Externally Situated, Poisonous Bites, Hæmorrhoids, Carbuncles, and Tumors."

The paper met with strong opposition and severe criticism from many prominent members of the Association. Dr. A. M. Douglas, a leading man in the profession of this State, warmly espoused the paper and moved that it be published in the proceedings of the Association, which was done. I also had the paper published in the *Medical and Surgical Reporter*, of Philadelphia.

Dr. Wilkerson, of Galveston, and Dr. Woods, of Toledo, Ohio, claim to have been the first to discover and adopt this mode of treatment for the cure of carbuncles. While I do not doubt for a moment the claims these gentlemen have set up, and do not doubt they made the discovery as claimed, yet in justice to myself I must most respectfully claim priority of discovery and application of treatment.

Dr. Atlee, some two years since, in the *Medical and Surgical Reporter*, in animadverting on my paper read before the State Medical Association, claimed that the same treatment was discovered and resorted to during the Crimean War. If such was the fact, I have yet authentically to hear of it.

In conclusion, I beg leave to say to the medical profession that after eleven years of constant practice I find it still not only the best, but the only absolute and *painless cure* of these exceedingly painful affections. I further beg leave to say that carbolic acid, on account of its local anæsthetic effects, will, when applied to the cavity of an aching tooth, in a few minutes relieve pain. A bone felon can be lanced with almost no pain by first wetting it with carbolic acid. By wetting the gum around a tooth with the acid, the tooth can be extracted with almost no pain. I firmly believe at no very distant day carbolic acid will be *facile princeps* of conservative surgery. I fully intended to read a paper on this subject before the American Medical Association at its session in St. Louis, but circumstances over which I have no control have alone prevented me.

Very truly, N. B. Kennedy, M.D.

Hillsboro, Texas, April 27, 1886.

THE SURGEON-GENERAL OF THE ARMY.

To the Editor of the Journal.

Dear Sir:—Our British friends, who have, especially in recent months, manifested so kindly an interest in the medical profession of the United States, ought above all things to be accurate in their statements. We read on page 756 of the issue of the *British Medical Journal*, of April 17, 1886, in the announcement of the Fifty-fourth Annual Meeting of the British Medical Association, to be held at Brighton, August 10–13, 1886, that "An Address in Medicine will be delivered by Surgeon-General John S. Billings, M.D., Director-General United States Army Medical Department, Washington."

It is incomprehensible that a journal, which is the official organ of a great National Association, could have been misled as to the fact that the Surgeon-General of the United States Army is Brigadier-General Robert Murray, one of the most distinguished officers of a corps, which has more than one distinguished member, especially distinguished both as a physician and as a surgeon.

General Murray entered the army in 1846, was commissioned Assistant Surgeon-General on December 14, 1882, and has been Surgeon-General of the army since November 23, 1883. The official reports of the Surgeon-General's Office of the Army have all, since that time, been issued over his signature and by his act, and consequently a periodical of the character of the *British Medical Journal* ought not to have been ignorant of the personality of an officer of such prominence.

Dr. Billings was No. 44 on the roster of the Medical Corps, for January, 1886, and number 27 on the list of "Surgeons with the rank of Major," having only entered the service in 1862, and is on duty at the Medical Department as one of the six assistants (not Assistant Surgeon-General, this officer being Colonel Glover Perrin, another veteran practitioner, and surgeon of nearly forty years' service, not unknown to fame). The misstatements in this case only deserve correction on account of the injustice done in ignoring an officer of the professional reputation of Surgeon-General Murray. Accuracy.

NECROLOGY.

WILLIAM EDWARD SAUNDERS, M.D.

Died from acute Bright's disease at his home in Sherman, Texas, on January 14, 1885, Dr. W. E. Saunders. He was born in Tennessee, on April 5, 1828, was left an orphan at an early age, and adopted by his grandfather, who lived in Henry county, Virginia, where he was reared and educated in the common schools of that county, spending his early years upon a farm. When about the age of 22 years he left Virginia and went to Tuscaloosa, Alabama, and began the study of medicine with Dr. Gill, of that place. He attended lectures at the Nashville Medical College from 1851 to 1853, graduating in the latter year. Moving to Texas the same year he began the practice of his profession in Fannin county, where he remained but a short time, removing thence to Sherman, where he spent nearly all of the remainder of his life.

In 1861 he volunteered in the Confederate Army, and was appointed Assistant-Surgeon of the Eleventh Texas Regiment, in which he served until the fall of 1862, when he was promoted to the rank of full surgeon, and assigned to duty in Clark's Regiment of Texas Volunteers. He enjoyed the confidence and respect of his command, and served with distinction throughout the war. In the winter of 1864–5 he was detached and sent to Arkansas to examine conscripts, and did valuable service by ordering men to duty who had been exempted for some trivial cause. At the close of hostilities he returned to Sherman, and resumed the practice of his profession. He attended a course of lectures at the University of Pennsylvania, and graduated from that institution in 1868. He was appointed Superintendent of the State Lunatic Asylum at Austin in 1879 by Governor O. M. Roberts, and successfully administered its affairs for a little more than two years, when he resigned to return to his home in Sherman, and again engage in private practice.

He was a man of fine physique, with a commanding figure and vigorous intellect. He was an attentive reader, digested well everything he read, and was possessed of a wide fund of general information. He was popular both as a physician and citizen with all classes in his community, and especially so with the young men, in whose society he delighted. He wielded a marked influence both in political and social circles, although he manifested a lively interest in the political affairs of the country, was never a candidate, and never held political office. He always commanded a good practice, was exceptionally well informed in the general literature of medicine, and carried to the bedside a ripe judgment. Though a general practitioner he was a surgeon of no mean capacity, but the department in which he excelled was that of diagnosis, being an acute observer and good reasoner, he rarely committed an error in diagnosis. He commanded the respect and confidence of his professional brethren in a marked degree, was an able counselor, agreeable and just to all.

He was a member of the American Medical Association, was first Vice-President of the Texas State Medical Association in 1879, and presided at its meeting in that year, was several times President of his County Medical Society, and an active and influential member. He was President of the Board of Medical Examiners for his District, and a railroad surgeon for many years. He was considered a "landmark" in the community in which he resided, and will be missed throughout the State. His character was above reproach, of a chivalrous nature, humane and generous to a fault. His charitable acts were performed in such a quiet way they were known to but few even of his personal friends, and his genuine modesty was sometimes detrimental to his personal interests. The profession has lost an able and loyal member, the community a useful citizen, a kind neighbor and cultured gentleman. He leaves a widow and one son. The profession of his county held a meeting, passed appropriate resolutions of respect, and attended his funeral in a body.

MISCELLANEOUS.

Unsanitary Condition of Ohio's Capitol.—Dr. R. Harvey Reed, of Mansfield, O., Secretary of the State Sanitary Association, has made a sanitary examination of the State House at Columbus, O., for the *Sanitary News*, and makes the following report:

Through the kindness of the chief engineer of the capitol, Mr. James Semple, a master plumber of Cincinnati, together with an eminent plumber of Columbus, accompanied me in the first inspection made about two weeks ago. In the second inspection I was accompanied by Mr. William Halley, a master plumber of Columbus, and the chief engineer. The following conditions were especially noticed: The "new" water closets of the House are the "Jennings" closet with tank supply, and intended to have a downward draft for ventilating purposes, but upon testing, they proved to be without any draft, and no means of ventilation other than the theoretical "downward draft" referred to. The urinals used are the old fashioned ones made of porcelain and flushed with water. Drippings are taken up by a bountiful supply of sawdust scattered over the floor. The urinals are without ventilation.

We next went to what is known as the "old closet" of the House, which is an old fashioned closet without traps of any description, and which is intended to be cleansed by a meager supply of water from a "tank supply and after wash," but which fails very decidedly in its purpose. Here the ventilation is supposed to be the "downward draft system," which, a test showed a draft sufficient to carry quite large pieces of paper out from the closet into the room instead of downward. This draft is constantly supplying the building with poisonous sewer gas in unlimited quantities.

Here the urinals are the old style, lead lined, and without either traps or ventilators, and are ably assisting in the work of supplying the capitol with copious supplies of poisoned air.

The Senate water closets and urinals revealed the same deplorable condition as those of the House. On examining the flush tanks we found the overflow pipe connected with the sewer without either trap or ventilator, and, unless there should be a constant overflow to prevent it, there is an immense discharge of sewer gas which is sickening and revolting. These tanks are so situated in dark closets as not to be seen, but, by their location in the building, they are enabled to supply it with a bountiful supply of poisonous gas.

The main sewer of the capitol connects with the Broad street sewer, and is trapped with an S trap, and ventilated through the smoke stack, which is also intended to give a "downward draft" to the water closets, but which is a practical failure as it stands to day.

The building is heated with steam pipes and an attempt at ventilation is made by introducing fresh air from the outside and warming it by means of these pipes in suitable brick chambers, and then carrying it through the building. The foul air is intended to be taken from these rooms in a similar manner and emptied into the smoke stack. This plan, however, does not succeed in getting rid of the foul air, and direct ventilation by means of the windows is often necessary in both houses.

It was noticed that the joints in the "live steam" pipes were made non expansive, while the return pipes for the so called "dead steam" pipes were made expansive, which serves to illustrate some of the scientific principles applied in the State Capitol in the plumbing line.

The escape of sewer gas in the basement is so extensive some days as to sicken the visitor who attempts to go through that part of the building. On other days it is scarcely perceptible. The writer having been present in both of these conditions, is reliably informed that this condition depended greatly on the direction of the wind.

Strange to say, the sewerage and plumbing of the capitol, as originally designed by the architect and executed, has mysteriously disappeared.

An appropriation has been made of $1,000 to put in new water closets, which should include the proper sanitary plumbing of the same.

The lighting of both houses is extremely unsanitary, the members having to sit facing large windows with the light glaring in their eyes, which together with the foul poisons that have free access to the capitol by means of improper and defective plumbing and ventilation, would make one feel that it is only charitable to excuse them for accused bad legislation, if the remedy for this all did not lay within themselves.

National Conference of State Boards of Health.—There will be an Annual Conference of State and Dominion Health Authorities at Toronto, Canada, early in October of this year, and all State and Dominion Boards of Health are cordially invited to send delegates. It is the design of this Conference to consider questions of mutual importance to all sections of the country, and in order that delegates may fully understand the topics to be discussed, as well as to determine the time necessary to set apart for this work and not interfere with the regular exercises of the American Public Health Association, it is necessary that Boards of Health should formulate questions and propositions they wish to have considered, and send the same to the Secretary, at Concord, N H, before August 1, 1886 A programme will then be made and sent to the several State Boards so that delegates can be prepared to act without delay, thereby facilitating the work of the Conference

Please send all questions and propositions in exactly the form you desire them to appear in the announcement Also, send the names of your delegates

It is proposed to meet one or two days prior to the meeting of the American Public Health Association, and the length of the programme will decide the time Therefore, all papers, questions and propositions should be submitted in due season

G P CONN, *Secretary*

Concord, N H

A DANGER IN TOY BALLOONS —The *Lancet* says that it seems that the little toy balloons or Inda rubber bladders which children inflate with the breath may be readily reversed by inspiration and even drawn into the air passages In two instances recently death has occurred by suffocation, a balloon of the sort being drawn into the opening of the glottis This is a matter of danger which ought to be recognized Parents and nurses should be on their guard

REPORT BY M PASTEUR —At the meeting of the Academy of Sciences last week M Pasteur read the following report of the results of his anti-rabic treatment at his laboratory in the Rue d'Ulm "The number of persons so treated amounted up to the 12th inst to 726, including those who are still undergoing treatment Of this number there were 688 who were bitten by mad dogs and thirty eight by wolves, the latter being all Russians The patients belonging to the first category are, with the exception of the little girl Pelletier, who, it will be remembered, died after a few inoculations, all doing well More than half of that number have passed the dangerous period Of the thirty eight Russians who have been treated and are still undergoing treatment, three have died rabic, the others are doing well, but it is impossible to foresee what may happen to them, as there exists a profound difference between the bites of dogs and those of wolves, the proportion of deaths caused by rabid wolves being at least 82 per cent" M Pasteur then concluded his report in the following terms "The above facts demonstrate (1) that the duration of incubation of human rabies caused by the bite of a rabid wolf is often very short, very much shorter than rabies after the bite of a mad dog, (2) that the mortality after the bites of rabid wolves is considerable if we compare it with the effects from the bites of dogs These two propositions may be sufficiently explained by the number, the depth, and the seat of the bites caused by the wolf, which so savagely attacks his victim, the attack being often on the head and face The necropsy of the three Russians who died at the Hôtel Dieu, and the inoculation of rabbits, guinea-pigs, and dogs with the medulla oblongata of the first of the patients who died, prove that the virus of the wolf and that of the dog are sensibly of the same degree of virulence, and that the difference of the rabies of the wolf and that of the dog depends on the number and nature of the bites These facts induced me to inquire whether, in the case of bites from rabid wolves, the method could not be usefully modified by inoculations in greater number and within a shorter time The results will be eventually reported to the Academy In any case, for the wolf in particular, it is good to submit the patient to the preventive treatment as soon as possible The Russians of Smolensk were six days on their journey to Paris, and presented themselves at the laboratory fourteen or fifteen days after having been bitten They might therefore have commenced the treatment eight days earlier, and one can not say what might have been the influence of this modification for the three patients who have succumbed"—*The Lancet*, April 24, 1886

A RICH merchant, M Chludow, has left more than £100,000 and a house to found a children's hospital in Moscow —*The Lancet*, April 24, 1886

THE PANAMA CANAL —M de Lesseps, who has recently returned from Panama, read a paper at a late meeting of the French Academy of Sciences giving an account of the progress of the great canal works The sanitary condition of the workmen he described as "relatively good," contrary to the unfavorable prophecies which were freely uttered at the outset In a hospital with 500 beds, M de Lesseps found only 300 occupied —*Lancet*, April 24, 1886

M VULPIAN has been elected Secretary for life to the Academy of Sciences, in place of M Gamin, recently deceased

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM APRIL 24, 1886 TO APRIL 30 1886

Capt Joseph K Corson, Asst Surgeon granted ten days' extension of leave of absence granted in Order No 79, April 15, 1886, Jefferson Bks, Mo (S O 97, A G O, April 26, 1886)

Capt Wm J Wilson, Asst Surgeon (Plattsburg Bks, N Y), granted leave of absence for one month, on surgeon's certificate of disability (S O 25, Div Atlantic, April 27, 1886)

Capt Robert B Benham, Asst Surgeon, ordered from Dept Texas to Dept Dakota (S O 97, A G O, April 26, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING MAY 1 1886

Wieber, F W F, Asst Surgeon, detached from R S "Vermont" and ordered to the "Hartford"

Tracy, Elmer C, Asst Surgeon, ordered to the "Vermont"

Waggener, J K, P A Surgeon, detached from the "Hartford" and ordered to the "Iroquois"

Bransford, J F, Surgeon, detached from the "Iroquois" to proceed home and await orders

Kite, Isaac W, Asst Surgeon, to duty at Naval Hospital, Brooklyn, N Y

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI | CHICAGO, MAY 15, 1886 | No. 20

ADDRESS IN MEDICINE

SOME POINTS IN BACTERIOLOGY[1]

BY JAMES T WHITTAKER, M D,
OF CINCINNATI
PROFESSOR OF THEORY AND PRACTICE OF MEDICINE, MEDICAL COLLEGE OF OHIO

> *"Vere scire est per causas scire*
> —BACON

There are three planes in the history of medicine The first is the study of the symptoms or appearance of disease It is the period of the infancy of medicine It is naturally the most crude period, and all irregular medicine still rests upon this plane It gave us a pharmacopœia, and the highest expression of it made of the practice of medicine an art The second plane begins with the observation of the effects or lesions of disease It made us familiar with the natural history of disease, and thereby nearly destroyed the pharmacopœia The third is the present plane, upon which are being prosecuted investigations into the cause of disease Investigators have just set foot upon its threshold When it shall have been fully attained medicine will be entitled to a place among the sciences which are called exact

The progress made in this direction during the past year so completely overshadows all other work in range and promise of practical value as to justify in this report, to the exclusion of everything else, a brief review of the conclusions reached

The etiology of acute infections is comprised under the single term, *bacteriology*, the bacterium having come in the course of time to include all pathogenic as well as many innocent micro organisms

The year just passed has not been as eventful in the definite discovery of new causes of disease as several that have preceded it in the first half of the present decade What has especially characterized the past year is the fixation of facts previously acquired, whereby the so called germ theory of infectious disease has been brought from the realms of the ideal to the region of the real Coemans said several years ago, "the following up of a single bacterium through all its phases of development is far more valuable than the discovery of new germs," and this pursuit has now been made with such success in the case of many forms as to justify in our day the claim of Magni in the Roman Annals of Public Medicine, fifteen years ago, that the study of medicine should undergo a reform, making obligatory at least a three months' course with micro organisms

For it is now demonstrated beyond dispute that pathogenic micro-organisms do exist in distinct and definite entity The views advanced by Beale, that bacteria are portions of diseased protoplasm from living tissues, and by Wigand, that they may spring up *de novo* in organic matter by transformation of organic molecules, are no longer held worthy of serious consideration The view of Beale was never anything more than an ingenious hypothesis, and it fell to the ground with the first studies of the life history of bacteria, while Wigand's theory had no better support than any other *spontaneous generation* The fate which so quickly overtook the illustration of this theory may well serve to show the danger of advocating spontaneous generation in our day

Wigand remarked that for the purpose of dissipating all doubts concerning the spontaneous development of bacteria in the protoplasm of cells, he would call attention to the fact that moving bacteria could be seen at any time in the healthy living cells of the trianea bogotensis, and in the hairs of the labiatæ. This statement was brought to the notice of the eminent botanist of Strasburg, de Bary, who thus describes his investigations The trianea is a South American floating water plant A piece of its living tissue removed from a fresh, healthy plant, examined under the microscope, reveals in fact the most exquisite picture of bacteria Slender bacilli, alone or adherent in short rows, follow about the movements of the protoplasm and other contents of the cell in the liveliest way Such a picture is a model—as a picture But the addition of a drop of dilute nitric acid quickly dispels the illusion Instead of maintaining itself like a true micro-organism, the bacteria of the trianea are dissolved away at once The same is true of the rods in the hairs of the lip flowering plants The "bacteria" are nothing else than small crystals of oxalate of lime frequent in this form in the cells of plants This story is instructive, the author says, in showing how far astray preconceptions may lead otherwise excellent observers

Wigand saw micro organisms develop in fluids after exposure to boiling heat for half an hour, a temperature and time sufficient, he thought, to destroy all germs But the experiments at Koch's laboratory at Berlin prove that individual spores resist a boiling heat for several hours Wigand's erroneous conclusions were based upon an imperfect sterilization

---

[1] The Address of the Chairman of the Section of Practice of Medicine, Materia Medica and Physiology at the Thirty Seventh Annual Meeting of the American Medical Association St. Louis May 5 1886

What a contrast to these obscure conceptions is offered in the clear statements of Leeuwenhoek, the first individual to turn the lens, crude and imperfect as it then was, upon, and to discover, micro organisms. It would almost seem as if great minds knew intuitively what is true and what is false, else how may we understand the observation made by Leeuwenhoek as early as 1685 of the minute organisms found in water: "they do not arise in the water," he says, "they develop from germs."

The germ theory of disease was never really in so much danger from its enemies as its friends. For many years it suffered ridicule and discredit because of the false conceptions of "undismayed pioneers" and over zealous advocates. The Germans still speak of the "uberreifer Eifer" of this class. Thus the choleraphyton proclaimed in England, and later again in Germany, turned out to be nothing else than eggs of intestinal worms, the animalculæ of variola eventuated in the common bacteria of putrefaction, and the palmellæ of malaria disclosed by one of our countrymen were unmasked as foreign bodies, impurities, not even germs.

Claims of Convertibility of all Germs.—An original conception of this over ripe zeal was the view of Hallier, that all kinds of germs, big and little, moulds, ferments, bacteria, are mutually convertible. Micrococci, said Zurn, are only stages of development of moulds. This view needed only the most accurate observations of Brefeld and de Bary to be entirely refuted. More serious was the claim of Grawitz that innocent mould fungi, aspergillus, mucor, etc., could be converted into dangerous forms. Grawitz saw that the injection of aspergillus into the blood of rabbits remained without effect, whereupon it occurred to him to change its natural, cool, acid soil to a warm alkaline soil with a view of changing its form and action. Such general permeation of various internal organs, especially the kidneys, followed these experiments, as to seem to have demonstrated the conversion of the innocent into a dangerous parasite.

But when Koch and Gaffky came to repeat these experiments, with the precautions implied in control observations, it was soon discovered that the species of aspergillus, mucor, etc., included a whole series of pathogenic germs, some of which had entered with the injection of innocent forms. Grawitz's erroneous conclusions were based upon the use of impure cultures.

The field had now become limited to the bacteria proper. It may be said at once that all practical interest hinges upon the question of the constancy or inconstancy, *mutability or immutability*, of the forms of pathogenic micro organisms. If they are not specifically different, as Nageli claimed, but are forms of one or a few species, so that the same species, by assuming different forms, may, in the course of years or decades, effect at one time the souring of milk, the ageing of wine, putrefaction, the decomposition of urea, the red coloration of starchy food, and at other times produce typhus, malarial or relapsing fevers, diphtheria and cholera—if such mutability of form and action exists as this, if the myriad micro organisms of the earth and air may at any time assume deadly properties—all effort at investigation is futile, if not foolish, and every effort at destruction is not only powerless but paralyzed.

This idea of the unity of species, first advocated in our day by Ray Lancaster, met with warm advocacy at the hands of Billroth, who derived the different forms from variations in the soil or substratum, and later of Warming, who considered the different forms as so many different stages of development of the same species, like, to use a coarse comparison, the different stages of development of tapeworms in different hosts. Klebs was also inclined to accept this view, though with the reservation that certain forms occur preferably in the form of bacilli, others of micrococci.

Hay and Milzbrand Bacillus.—Perhaps no single statement seemed to lend such support to the negation of species as the claim of Buchner to be able to transform the innocent bacillus of hay infusion into the deadly organism of milzbrand. Buchner observed under continued cultivation the gradual change of the hay bacillus into the milzbrand bacillus, and with the reversal of this change, which he was likewise able to produce, maintained that the loss of virulence of the milzbrand bacillus was not an attenuation, as Pasteur had claimed, but a veritable transformation. Buchner was sufficiently well acquainted with the gross differences of the two bacilli, but he regarded them as accommodations of the same form to different soils. Hueppe credits Buchner also with a knowledge of the spore formation of the two bacilli—the most distinctive characteristic of different forms—which Buchner considered identical, a consideration which misled Brefeld to adopt Buchner's conclusions, but de Bary insists that with the gross differences in the spore formation of the two bacilli, it is doubtful if Buchner ever really studied the hay bacillus in this essential particular.

At any rate, it was easy for Koch, by pointing out these differences, as well as the difference in the resistance of the spores, the difference in the optimum and minimum temperatures in the process of reproduction, etc., to prove that Buchner was experimenting with two distinct species or forms, and that the apparent transformation was really a case of substitution or displacement of one form by the other. Inasmuch as no one has since succeeded in effecting such a transformation, this question may be regarded as definitely settled. Final disproof of Buchner's claim was made by Prazmowski in 1884, with the exhibition of such distinct differences in the two forms as to demonstrate their independence, so that whatever dispute remained concerned simply the possibility of attenuating the bacilli of milzbrand, a subject to be noticed again.

Bacteria of Milk.—A much more simple and easily refuted illustration of the inconstancy of action of micro organisms was the observation of Nageli, that fresh milk on standing becomes sour but boiled milk bitter. Fresh milk becomes sour, Nageli says, under the action of a certain bacterium. Boiling the milk changes the character of the soil and the action of the same germ. Here, then, is an everyday observation of the transformation of the same micro organism

That this illustration may not seem too trivial, it may be said that it was, up to the time of Buchner's experiments, just mentioned, the sole apparently indisputable proof of the change of one definite ferment into another

The fallacy of it became obvious when it was discovered that milk is made sour by many causes, among others, by many varieties of bacteria, of which Nageli assumed the existence of but one It did not occur to him to inquire if one variety might not get the upper hand before, another after boiling The truth turned out even more simple than this, for Hueppe showed that of the many forms of micro organisms present in milk, one, the micrococcus lacticus, exuberates in a low temperature, and renders milk sour by the formation of lactic acid Boiling kills this micro organism with many others, but the spores of the butyric acid germ, the bacillus amylobacter, also present, survive boiling heat to develop later into the mature form This bacillus effects in boiled milk a decomposition of the albuminates, attended with a bitter taste Neither form nor action has been changed in a single germ

Deviations that do Occur—But the strongest advocates of constancy of form and function, Cohn and Koch, do not maintain that certain deviations may not occur They claim only that these deviations occur within certain limits, such limits as are to be observed in structures higher in the vegetable scale Gardeners, florists, farmers, succeed in effecting, under varying surroundings, marked variations from he primitive plant, but they may never change an apple to a pear tree, wheat into rye, or a sunflower to a rose Koch himself admits the possibility of changing one form of micro organism to a nearly allied form He goes so far as to say that it is not without the bounds of possibility to convert a pathogenic into an innocent form What he asks is simply that the specificness of one form shall not be surrendered until the proof is furnished There are monomorphous and pleomorphous bacteria No one claims that every micro organism shows itself under all circumstances in but one form, as Koch admits the occurrence of Finkler's vibrio in three forms, the curved rod, the lemon shape and the spirilla, but he still insists that the individual preserves the reproductive form of its cells, that is, that it appears as a micrococcus, a bacillus or a spirilla, and that it does not change these forms For, as Mittenzweig maintains, it has never yet been shown that a bacterium appears at one time as a genuine micrococcus, at another as a genuine bacillus, and again as a genuine spirilla, and even if we admit the form changes which Buchner and Gruber have observed in the organism of Finkler, and Babes has observed in the cholera germ, we must also admit, as Buchner has himself observed, that in the cultivation of the different forms the typical curved rod invariably appears, so that all these secondary changes are to be looked upon simply as so many variations upon the typical form With the experience of the botanist and florist cited, it is not a matter of surprise that micro organisms have been seen to undergo changes of form which are not observed in nature Attenuations of virulence, for instance, in virulent germs never occur spontaneously

The Germ, not the Form, Essential—The conclusion reached by the mycologists of the present day is that under natural circumstances micro organisms show themselves in the rule, not with variations but in permanent forms, but that disease is not produced so much by a distinct and definite form as by a distinct and definite germ Most of the diseases of plants, de Bary says, are produced by parasites, and as investigations develop more and more distinct species it is seen that definite diseases are produced by definite parasites, whose specific properties are no more to be doubted than those of higher organisms or worms This claim, the author concludes, is not simply convenient, as Nageli observes, it is the only view which is consistent with acquired facts

Ubiquitous and Indigenous Germs—The world of micro-organic life falls naturally into two great divisions One is found everywhere, at all times and in all places, and, as has been shown, in abundance enough to realize the panspermatism of the ancients Such germs are known as omnipresent, or, from the fact of their ability to obtain sustenance everywhere, as omnivorous germs Hallier proposed to call them cosmopolitan, but Cohn devised the best appelative when he spoke of them as ubiquitous Myriads of these germs are entirely innocent to man Others are injurious only under certain circumstances Thus the ubiquitous germs of common putrefaction may penetrate the body from a slough or a gangrenous part, to produce by their presence, or the chemical changes they induce, the condition known as septicæmia Thus the pus producing micro organisms, probably of many kinds, belong to the class of ubiquitous germs

On the other hand, most pathogenic micro organisms are indigenous to certain definite places These are the epidemic germs Thus the mouths of the Ganges and Brahmaputra are the centres of cholera, Lower Egypt of the plague, the Antilles of yellow fever, Ireland of typhus But just as plants of higher organization may be transplanted to other soils, may original endemics assume epidemic and finally pandemic proportions or extent Thus small pox first showed itself in Germany in 1493, an importation from the Netherlands, but it was not until 1527 that it was transported to our continent, making its appearance with wholesale slaughter in Mexico, and gradually extending thence over the whole of North America. Scarlet fever, which was first heard of in Arabia, was not seen in our country until 1735 It reached Iceland in 1827, South America in 1829, Greenland in 1847, and Australia in 1848 Measles had not been carried to Australia up to the beginning of our own decade Cerebro-spinal meningitis, in all respects the most irregular of all epidemic diseases, first sprang up in Geneva, and first fell upon our country in 1806 Cholera was unknown with us until the memorable year of 1832 Even tuberculosis, which has long since assumed pandemic extent, was, as Liebermeister has shown, not originally ubiquitous, as it remained unknown to our own Indians, to the aborigines of Australia and the negroes of Central Africa until carried to them by more civilized races There is therefore no longer question of the spontaneous, or so-called autocthonous, origin of infection. Typhoid and typhus fevers, dysentery and diphtheria, pyæmia, erysipelas and puerperal fever, appear only at times when lurking germs and spores from previous cases find favorable conditions for development, or after fresh importations of the disease. All this disease, all infectious disease, is of exclusively parental birth, and can no more originate spontaneously than can serpents and crocodiles originate from heat and mud as Lepidus maintained, bees be produced from the putrefying entrails of steers, as Virgil described, or mice be generated from sawdust and old shirts, as Van Helmont claimed. In keeping with these theories were the views since maintained that the plague arose from the putrefaction of corpses, yellow fever from the crowding of slave ships, cholera from decaying vegetable food, typhoid fever from the emanations of human excrement, consumption from bad ventilation, or oftener from a bad cold, and diphtheria from sewer gas. These are factors which do undoubtedly favor the spread of the infectious maladies, but never originate the birth of one. A fright may cause a premature birth, Jurgensen remarks facetiously, but it would never conceive a fœtus. So, rabies and hydrophobia can no more arise spontaneously than can dogs and men.

Thus is explained the specificness of acute infectious disease. Each one of these diseases produces itself alone. Measles begets measles, small-pox begets small-pox, cholera begets cholera. Figs would be born of thistles, or grapes of thorns, as soon as cholera of small-pox or diphtheria of typhoid fever. The introduction into the blood of a specific germ begets the specific disease, and the fact that each one of the acute infections has always presented the same characteristics, proves most conclusively that *no change has occurred* in the properties or peculiarities of the specific cause. For so long as observations have been recorded, measles, for instance, has always been the same disease, with the same period of incubation, the same prodromata, and the same eruption, the same complications and the same termination. New interpretations of the phenomena of the acute infectious diseases have been made from time to time, more searching means of study have developed new signs, but the characteristic features of each of the acute infections have always remained the same. The accurate observations rendered possible by the adoption of the solid culture soil are in thorough accord with these conclusions. The essential nature of pathogenic bacteria is not changed by alterations in the soil or other surroundings. Bacteria may be shriveled or dwarfed or reproduction checked by lack of oxygen, unsuitable nutrition, improper temperature, but they may not be changed in nature. Up to the present time it has been found impossible to convert innocent into pathogenic forms, and the observations recorded which seem to lend support to the transmutation theory, as by Buchner, Bastian, Nageli, and others, have been shown to rest upon inaccuracies or impurities.

Attenuation not Change of Nature.—But the case is very different with the converse of this view, which opens up one of the most interesting studies in mycology. Is it possible to deprive the pathogenic forms of their pathogenic properties? The belief is still maintained, by some clinicians at least, that vaccinia is smallpox which has lost its virulence by passing through the body of a cow, and the question of attenuation of the so called virus of virulent disease with the view of inoculating it in milder form, occupies the attention of prominent mycologists at the present time. Within the present decade this question has been answered in the affirmative with reference to the virulent bacteria of charbon. For it has been discovered by Pasteur and by Koch that under the influence of high temperature and various chemical agents, the bacteria of charbon may be made to suffer loss of their pathogenic properties, while they still retain all other characteristics, including the capacity of reproduction. Pasteur claims to have effected the same attenuation in the case of hydrophobia. But these observations do not support the view that any change of nature has been experienced in this way. Bacteria thus treated are not changed into innocent forms. They have simply lost the physiological property of infection. Baumgartner puts it pertinently when he says it is not a question of changing poisonous into innocent snakes, but of extracting the poison fangs from animals which otherwise remain the same.

The Morphology of Bacteria is not simply a question of size and shape. The term is extended to include also motion, color and affinity for color, as well as the manner of growth or disposition of the colonies. In many cases such distinctive peculiarities are already demonstrated as to render it possible to absolutely diagnosticate disease in life by one or more of these points. As Hueppe says, this is the most interesting question for the clinician. May we make a differential diagnosis from morphology alone?

Bacteria vary greatly in both length and breadth, but are for the most part so small as to be on the confines of the visible with the microscope. In fact, it is chiefly by reason of the recent improvements in the illumination and magnification of the microscope, the oil immersion lens and Abbé illuminating apparatus, that they have been rendered visible at all. Some of them are to be seen only with a power of 700 diameters, which is the magnification generally used in the study of all micro organisms. Mycologists speak of micro-, meso and mega coccus, or bacteria, of the micrococ coccus prodigiosus, and of the bacillus subtilitis, but these are all, of course, relative terms. Pathogenic micro organisms vary in length from 1 to 40 mikro millimetres, and in breadth from 0.5 to 7mm. Many micrococci are to minute to admit of any accurate measurement. The largest micro organism is the spirilla, which may reach the length of .2 of a millimetre. Perhaps a better idea of size can be conveyed by comparison with a familiar object. The bacillus tuberculosis, which occupies in respect to size a median place, varies in length from 1–2000 to 1–3500 of an inch, the smaller measure being the average diameter of a corpuscle of human blood.

Although some distinction may be made between pathogenic and innocent organisms by their size and shape, the most skilful mycologist would hesitate to express an opinion on this fact alone. But micro-organisms may look alike and yet be very different Spermatozoids of different animals may present the same general appearance, but they are endowed with very different properties We remain as yet at too great distance to make out the distinguishing features even of innocent and dangerous micro organisms As Birch-Hirschfeld remarked, it would be impossible to declare of a man standing on the spire of the Strasburg cathedral, whether he was black or white, and even the same configuration in every particular would furnish no more definite criterion than in the case of full grown serpents of the same appearance, some of which only are poisonous We await now with intense interest the revelations which are to follow the experiments with the new theory worked out by Professor Abbé, which it is claimed already exhibits differences in the structure of bacteria

The general construction of bacteria, so far as it can be studied, is simple enough Bacteria are cells because they are constituted, grow and divide like cells, and although nuclei have not yet been discovered in them, they are in this regard not unlike other low forms of vegetable cells The protoplasm of the cell seems homogeneous in the minutest, but more or less granular in the larger and more distinctly visible forms It shows the same reactions and takes up the same colors as other protoplasmic bodies, differing as they do in different forms The cell is invested with a membrane which may be separated from the protoplasm by agents like the alcoholic solution of iodine, which shrink the protoplasm The membrane assumes prominence also at the period of spore formation It is in most cases firm and closely apposed to all contents, while in the spirochates it is extensile and elastic Dark, transverse lines forming across the protoplasm indicate the division of a bacterium into daughter cells, which separate in the process of reproduction Hence the name schizomycetes A billiard ball, a lead pencil and corkscrew, indicate in the homely comparisons of de Bary the chief varieties of bacteria as micrococci, bacilli and spirillæ

Distinction of Bacteria —A glance would reveal the difference between a bacillus and a spirilla, and there could be no question of mistaking a micrococcus for either In many cases even gross morphological resemblances could create no embarrassment in the mind of the practitioner What possible doubt could exist, for instance as between the comma bacillus of the stools and intestinal contents of cholera and the innocent comma bacillus found in the mouths of healthy people? The condition of the patient decides it at once, or if there could still be a doubt, it would be dissipated with a knowledge of the fact that the cholera bacillus is not found in the mouth But in many cases differences in form alone are too slight, and variations in size too great to be recognized by the clinician In some cases these differences can be seen Thus the slight deviations between the forms of the bacilli of milzbrand and malignant œdema enable mycologists to separate diseases which are often confounded But these distinctions may be made out only in the laboratories of experts Hence for practical use appeal must be made to other factors in morphology Thus the bacillus of tuberculosis, syphilis and leprosy closely resemble each other, that is closely to the clinician, though coarsely to the mycologist But the tubercle bacillus distinguishes itself from all other bacilli save one, by two peculiarities first, lack of affinity for all dyes, that is, the resistance it shows to colors, and, secondly, when it is colored with alkaline dyes, by the persistance with which it retains its color in the presence of mineral acids This persistence is shown only by the bacillus of leprosy, but the bacillus of leprosy may be differentiated by the fact that it may be colored with Weigert's nucleus color, (hæmatoxylin, alcohol, alum, aa 2, distilled water, glycerine, aa 100), which has no effect upon the bacillus tuberculosis The colored bacilli of syphilis are decolorized by mineral acids By the method mentioned Gaffky discovered characteristic bacilli in the sputum of tuberculosis in 938 of 982 cases

Considering the fallacies of the observations, and the stage of prephysical signs, it is safe to say that the time is close at hand when we shall no longer think of using the pleximeter and the stethoscope in the diagnosis of tuberculosis

A skilled mycologist would alone detect the fine differences in morphology of the bacilli of cholera and cholera morbus, but any one would notice at a glance the difference in the funnel and cone or stocking shaped colonies of the two varieties As, however, the length of time that must necessarily lapse to make this observation precludes its practical value to clinicians, quicker conclusions can be reached by the physiological test, that is the introduction of the germs, or matter containing them, into the stomachs of guinea pigs These animals are very susceptible to cholera morbus, but insusceptible to true cholera, without special preparations or precautions ' Perhaps this test would be resorted to only in cases where doubt existed as to the commencement of an epidemic of Asiatic cholera

The method in which the bacteria aggregate themselves in the process of growth in the culture soil, the process of colonization it would be called in the tissues of the body, or *the formation of zooglea*, furnishes some, but uncertain information regarding the nature of the germ Cohn thought at one time that the whole class of bacteria might be divided into two distinct species, one of which formed a mucus-like mass, the other fibrils or threads These classes he proposed to designate as gleogenous or mucus-forming, and nematogenous or thread forming families, but he was compelled subsequently to abandon the idea on observing the changes in the mode of growth in different soils and at different temperatures Thereupon Koch observed that the formation of zooglea in the form of membranes or fibrils, squamous, dendritic, fenestrated, nodular, globular, circular, etc , immediately preceded the development of spores Both Cohn and Koch soon reached the conclusion that while the form of the colony might serve to separate families and groups, estimates based upon such observations must be accepted with much reserve But while it is admitted that the form of the zooglea varies in different soils, it is nevertheless true that a typical form is shown under the same conditions, a fact which Hueppe remarks, essentially lightens a differential diagnosis To give but one example, the bacillus anthracis may be macroscopically distinguished from the non parasitic bacillus subtilis by the fact that the anthrax bacillus forms in its soil a flocculent deposit, while the bacillus subtilis develops a dry membrane upon its surface

The development of bacteria does not differ from the higher vegetations in requiring the necessities of life, food, heat, oxygen, water, etc

Pure Culture Soils —The question of food is connected with the subject of cultivation in the so called pure culture soils, which consists in selecting the food best adapted for the rapid multiplication of micro organisms The fact that bacteria remain sterile in certain soils and luxuriate in others does not surprise us when we reflect upon the predilections of higher forms of vegetation

While, then, many bacteria may be cultivated in almost any kind of culture soil, they differ in the degree of development according to the nature of the soil Thus Wilkommen has observed that the germs which thrive upon the South American potato can not be made to grow upon the European potato The micro organisms which give the peculiar piquancy to Stilson and Roquefort cheese grow better in certain cellars than in others The first experiments in cultivating bacteria were in fluids, solutions of meat, beef tea, chicken soup, malt extracts, infusions of hay, etc , but fluids are open to the objection that they admit other germs, to coalesce with and rendered impure the special variety to be studied Pure cultivation became possible only with the use of the pure culture soil, first employed by Koch Germs falling upon a solid surface remain fixed in the same place The solid culture soil made practicable the absolute isolation of germs, without which accurate investigation is impossible Koch made his first studies with the common potato The potato was the key to the whole subject of solid cultures We might say that what the apple was to Newton the potato was to Koch Subsequently gelatine was employed, then aqueous humor, then gelatinized meat preparations, peptonized gelatine, etc , and as a climax for the epicures, gelatinized blood Thus has been determined the peculiar soil in which the varieties of pathogenic bacteria thrive the best Thus while the bacillus of both forms of cholera develop upon both animal and vegetable soils (both being really exanthropic germs), the bacilli of tuberculosis will not grow in a vegetable soil as upon the surface of a potato, but will thrive in infusions of meat and luxuriate in the serum of the blood The micrococcus of chicken cholera grows to swarms in neutralized chicken-soup, and the comma bacillus, which is really not a bacillus, but a form of vibrio or spirilla, develops in such luxuriance in alkaline meat soups as to have enabled Schottelius to detect it in minimum amount In such cases, where but very few or doubtful specimens were present in the intestinal contents, Schottelius added to the contents two and a half times as much slightly alkalised infusions of meat, or ten times as much gelatinized meat peptones In this mixture preserved uncovered in a warm place at a temperature not above 40° C cholera germs developed in myriads within twelve hours

Effect of Bacteria on Food —In this connection a remark may be made upon the effect of bacteria upon the food selected, foreshadowing the local effects of micro organisms upon the tissues of the body in the so called local symptoms of disease It is observed and distinctly tabulated if the gelatine or other food be fluidified, granulated, colored, decomposed, with or without the development of odors and gases, and the time required to induce these changes Thus have the mycologists made us familiar with characteristic features of the vibrios of both forms of cholera, which fluidify gelatine, while the micrococci of pneumonia have no such effect, have pointed out the nail cultures of pneumonia, the air vesicles of Asiatic cholera, the flat scales of tuberculosis, the fern leaves of the micrococcus of erysipelas, the acacia leaves of one form of the micrococci of pus So also of the effect of puncture or stick cultures show peculiarities different from plate cultures, and different effects are observed again with the same bacteria in different kinds of soil or food Eisenberg has recently (Hamburg and Leipsic, 1886) published a Bacteriologische Diagnostik, which consists of a series of tables wherein are noted, in a form of inestimable value to the student of bacteriology, all these peculiarities of all known germs

Concerning Temperature —Three cardinal points are recognized of the temperature the maximum, the minimum and the optimum The optimum is the temperature most conducive to fructification, to spore formation Excesses in either direction arrest certain processes, extremes destroy life As might have been premised, non parasitic enjoy much wider latitude than parasitic germs Thus, according to Cohn, the bacterium termo grows between 5° and 40° C , with its optimum at 30° to 35° C , while the border temperatures of the bacillus tuberculosis, according to Koch, are 28° and 42°, with an optimum at 37°, the temperature of the human body The conjoined influence of soil and temperature is shown in the conduct of certain bacilli (tyrothrix) found in cheese The optimum temperature of this germ is 25° to 35° C In a neutral fluid they are killed by a temperature of 90° to 95° C , while in a weak alkaline fluid they live at 100° The mature spores of this species remain productive in a weak alkaline fluid after being boiled at a temperature of 115° C Tyrothrix filiformis survives in milk a temperature up to 100° C , a degree fatal in one minute in an acid fluid The spores of this species survive in milk a temperature of 120° C , while in gelatine they are destroyed at 110° C This knowledge of the range of temperature gives a differentiation at once of parasitic from non parasitic bacteria, as germs whose range is limited to 28° to 42° C , may not constantly find anywhere upon earth, outside of animal bodies, the necessary means of existence

Need of Oxygen —Such differences prevail regarding the need of oxygen that Pasteur separated all micro organisms into two classes, ærobes and anaerobes As, however, all known pathogenic micro organisms must have oxygen more or less, the division is of more value to the mycologist than the clinician One point in this connection regarding the ammoniacal degeneration of urine is of interest to the practitioner

Bacteria of Urine —This degeneration, as is well known, results from the conversion of urea by the absorption of water, into the carbonate of ammonia, during which process the originally clear fluid becomes cloudy and opaque A drop of this urine under the microscope discloses myriads of germs of all descriptions Cohn has shown that one of them, the micro cocus ureæ, is the prime cause of the ammoniacal change Pasteur had already discovered that this micrococcus cultivated pure in a fluid containing urea induced in it the same change as in urine, and Musculus has since disclosed the fact that the change is induced by a chemical product, an enzyma separable by alcohol, excreted from this particular germ

The presence of oxygen is a necessary condition of the life of the micrococcus ureæ, which cannot, therefore, be the cause of the ammoniacal degeneration that in bad cases of catarrhal inflammation takes place within the bladder, a sac shut in from the outside air It was then assumed that this degeneration must be affected by other anærobic bacteria, and in fact, minute forms are found in freshly voided urine

It is interesting to know that Miquel discovered in dust a very delicate bacterium which vegetates in the absence of oxygen This bacillus he named the bacillus ureæ, because it has the power of converting urea into the carbonate of ammonia Hence the force of Teuffel's warning, "Put no soiled catheter into the bladder"

The Fecundity of Micro Organisms has been so often demonstrated in explanation of the suddenness of appearance of them in multitudes, and of the virulence of infectious disease, as to require mention here only for the purpose of checking the riots of the imagination It is known that a particle from a milzbrand bacillus, so small as to be invisible under an ordinary lens, introduced beneath the skin of a guinea pig, multiplies sufficiently to kill the animal in forty-eight hours, and a drop of the blood of the animal thus affected, properly inoculated, destroys the largest ox in a few days It is useless to dwell upon this point of propagation It was the recognition of it that more than another compelled the return to the germ theory of infectious disease when it seemed to have been routed even with contumely No purely chemical substance possesses this property The power of reproduction or self multiplication is limited to living things Chemical substance admit of great subdivision, as best exemplified, perhaps, in the dissemination of odors, but such subdivision is attended always with gradual loss of substance

Reproduction takes place in bacteria, whether by fission or spore formation, a rapidity bordering on the marvelous Cohn indulged himself in the pursuit of a calculation, reaching the conclusion that the progeny of a single bacterium, unchecked in growth, would in the course of three days reach the apalling weight of fifteen million pounds Troy, and in five days fill up a space of 928,000,000 cubic miles, the estimated capacity of the entire ocean But while some such calculations may be justifiable to convey some adequate idea of the degree to which the earth and the air may be filled in a few days during the prevalence of an epidemic, it must be remembered that it was flights of fancy like these that first brought the germ theory into discredit and derision Check is put upon the development and reproduction of all bacteria by the lack of nutrition, which sooner or later must ensue, as well as by the inimical action of different varieties upon each other Thus the bacteria of decomposition cease to multiply and perish by the myriad so soon as the material of their food is converted into inorganic matter, the bacteria of fermentation are destroyed, or their reproduction checked by the alcohol which they form, the bacteria of cholera with dessication, etc The bacteria of most diseases perish with the death of their host, as well as from various other causes in life, as by the fever they evoke, or are themselves destroyed by the bacteria of putrefaction

Thus it has been proposed to cure trachoma with the gonococci of gonorrhœa, lupus and epithelioma with the micrococci of erysipelas, and tuberculosis by the inhalation of the bacteria of putrefaction

Spore Formation —The conditions affecting the process of fructification are of extreme importance to the proper understanding of the cause and prevention of acute infectious disease A single bacterium is made up of several cells of parts, of which each cell forms one spore Pasteur first recognized these "brilliant corpuscles," but it remained for Koch to determine their significance, and for Prazmowski and Hueppe to establish their supreme value from the point of view of differential diagnosis The difference in the method of spore formation is also a chapter of itself which could find no discussion in the limits of this report It is enough to say here that characteristics of specific bacteria are as definitely determined in the observation of these phenomena as in the effects of inoculation Spores constitute the permanent forms

Endospores and Anthrospores —There is now quite general acceptance of de Bary's division of all bacteria into classes, one multiplying by endospores and one by arthrospores Endospores are spores evolved from protoplasm in the body of bacteria in such a way that the spore forms its own membrane, while an arthrospore is a transformation of an entire part or cell of a bacterium, the membrane of the bacterium forming the membrane of the spore True bacteria develop by endospores Such are the pathogenic bacteria, whether in the form of micrococci, as of erysipelas, pneumonia, gonorrhœa, suppuration, bacilli, as of tuberculosis, syphilis, leprosy diphtheria, milzbrand, glanders and typhoid fever

Spores are distinguished from micrococci by their bluish, opalescent cast, their high refractive power, and their obstinacy to color, because of the impermeability of their membranes Strong acids and extreme heat, which kill the protoplasm of the bacteria, injure the vitality of the spore membrane, to make it permeable and admit color Under such conditions spores may be colored intensely while the body of the form is shown under the same conditions, a fact which Hueppe remarks, essentially lightens a differential diagnosis. To give but one example, the bacillus anthracis may be macroscopically distinguished from the non parasitic bacillus subtilis by the fact that the anthrax bacillus forms in its soil a flocculent deposit, while the bacillus subtilis develops a dry membrane upon its surface.

The development of bacteria does not differ from the higher vegetations in requiring the necessities of life, food, heat, oxygen, water, etc.

Pure Culture Soils.—The question of food is connected with the subject of cultivation in the so called pure culture soils, which consists in selecting the food best adapted for the rapid multiplication of micro-organisms. The fact that bacteria remain sterile in certain soils and luxuriate in others does not surprise us when we reflect upon the predilections of higher forms of vegetation.

While, then, many bacteria may be cultivated in almost any kind of culture soil, they differ in the degree of development according to the nature of the soil. Thus Wilkommen has observed that the germs which thrive upon the South American potato can not be made to grow upon the European potato. The micro organisms which give the peculiar piquancy to Stilson and Roquefort cheese grow better in certain cellars than in others. The first experiments in cultivating bacteria were in fluids, solutions of meat, beef tea, chicken soup, malt extracts, infusions of hay, etc., but fluids are open to the objection that they admit other germs, to coalesce with and rendered impure the special variety to be studied. Pure cultivation became possible only with the use of the pure culture soil, first employed by Koch. Germs falling upon a solid surface remain fixed in the same place. The solid culture soil made practicable the absolute isolation of germs, without which accurate investigation is impossible. Koch made his first studies with the common potato. The potato was the key to the whole subject of solid cultures. We might say that what the apple was to Newton the potato was to Koch. Subsequently gelatine was employed, then aqueous humor, then gelatinized meat preparations, peptonized gelatine, etc., and as a climax for the epicures, gelatinized blood. Thus has been determined the peculiar soil in which the varieties of pathogenic bacteria thrive the best. Thus while the bacillus of both forms of cholera develop upon both animal and vegetable soils (both being really exanthropic germs), the bacilli of tuberculosis will not grow in a vegetable soil as upon the surface of a potato, but will thrive in infusions of meat and luxuriate in the serum of the blood. The micrococcus of chicken cholera grows to swarms in neutralized chicken-soup, and the comma bacillus, which is really not a bacillus, but a form of vibrio or spirilla, develops in such luxuriance in alkaline meat soups as to have enabled Schottelius to detect it in minimum amount. In such cases, where but very few or doubtful specimens were present in the intestinal contents, Schottelius added to the contents two and a half times as much slightly alkalised infusions of meat, or ten times as much gelatinized meat peptones. In this mixture preserved uncovered in a warm place at a temperature not above 40° C. cholera germs developed in myriads within twelve hours.

Effect of Bacteria on Food.—In this connection a remark may be made upon the effect of bacteria upon the food selected, foreshadowing the local effects of micro organisms upon the tissues of the body in the so called local symptoms of disease. It is observed and distinctly tabulated if the gelatine or other food be fluidified, granulated, colored, decomposed, with or without the development of odors and gases, and the time required to induce these changes. Thus have the mycologists made us familiar with characteristic features of the vibrios of both forms of cholera, which fluidify gelatine, while the micrococci of pneumonia have no such effect; have pointed out the nail cultures of pneumonia, the air vesicles of Asiatic cholera, the flat scales of tuberculosis, the fern leaves of the micrococcus of erysipelas, the acacia leaves of one form of the micrococci of pus. So also of the effect of puncture or stick cultures show peculiarities different from plate cultures, and different effects are observed again with the same bacteria in different kinds of soil or food. Eisenberg has recently (Hamburg and Leipsic, 1886) published a Bacteriologische Diagnostik, which consists of a series of tables wherein are noted, in a form of inestimable value to the student of bacteriology, all these peculiarities of all known germs.

Concerning Temperature.—Three cardinal points are recognized of the temperature: the maximum, the minimum and the optimum. The optimum is the temperature most conducive to fructification, to spore formation. Excesses in either direction arrest certain processes, extremes destroy life. As might have been premised, non-parasitic enjoy much wider latitude than parasitic germs. Thus, according to Cohn, the bacterium termo grows between 5° and 40° C., with its optimum at 30° to 35° C., while the border temperatures of the bacillus tuberculosis, according to Koch, are 28° and 42°, with an optimum at 37°, the temperature of the human body. The conjoined influence of soil and temperature is shown in the conduct of certain bacilli (tyrothrix) found in cheese. The optimum temperature of this germ is 25° to 35° C. In a neutral fluid they are killed by a temperature of 90° to 95° C., while in a weak alkaline fluid they live at 100°. The mature spores of this species remain productive in a weak alkaline fluid after being boiled at a temperature of 115° C. Tyrothrix filiformis survives in milk a temperature up to 100° C., a degree fatal in one minute in an acid fluid. The spores of this species survive in milk a temperature of 120° C., while in gelatine they are destroyed at 110° C. This knowledge of the range of temperature gives a differentiation at once of parasitic from non-parasitic bacteria, as germs whose range is limited to 28° to 42° C., may not constantly find anywhere upon earth, outside of animal bodies, the necessary means of existence.

Need of Oxygen.—Such differences prevail regarding the need of oxygen that Pasteur separated all micro organisms into two classes, ærobes and anærobes. As, however, all known pathogenic micro-organisms must have oxygen more or less, the division is of more value to the mycologist than the clinician One point in this connection regarding the ammoniacal degeneration of urine is of interest to the practitioner

Bacteria of Urine —This degeneration, as is well known, results from the conversion of urea by the absorption of water, into the carbonate of ammonia, during which process the originally clear fluid becomes cloudy and opaque A drop of this urine under the microscope discloses myriads of germs of all descriptions Cohn has shown that one of them, the micro cocus ureæ, is the prime cause of the ammoniacal change Pasteur had already discovered that this micrococcus cultivated pure in a fluid containing urea induced in it the same change as in urine, and Musculus has since disclosed the fact that the change is induced by a chemical product, an enzyma separable by alcohol, excreted from this particular germ

The presence of oxygen is a necessary condition of the life of the micrococcus ureæ, which cannot, therefore, be the cause of the ammoniacal degeneration that in bad cases of catarrhal inflammation takes place within the bladder, a sac shut in from the outside air It was then assumed that this degeneration must be affected by other anærobic bacteria, and in fact, minute forms are found in freshly voided urine

It is interesting to know that Miquel discovered in dust a very delicate bacterium which vegetates in the absence of oxygen This bacillus he named the bacillus ureæ, because it has the power of converting urea into the carbonate of ammonia Hence the force of Teuffel's warning, "Put no soiled catheter into the bladder"

The Fecundity of Micro Organisms has been so often demonstrated in explanation of the suddenness of appearance of them in multitudes, and of the virulence of infectious disease, as to require mention here only for the purpose of checking the riots of the imagination It is known that a particle from a milzbrand bacillus, so small as to be invisible under an ordinary lens, introduced beneath the skin of a guinea pig, multiplies sufficiently to kill the animal in forty-eight hours, and a drop of the blood of the animal thus affected, properly inoculated, destroys the largest ox in a few days It is useless to dwell upon this point of propagation It was the recognition of it that more than another compelled the return to the germ theory of infectious disease when it seemed to have been routed even with contumely No purely chemical substance possesses this property The power of reproduction or self multiplication is limited to living things Chemical substance admit of great subdivision, as best exemplified, perhaps, in the dissemination of odors, but such subdivision is attended always with gradual loss of substance

Reproduction takes place in bacteria, whether by fission or spore formation, a rapidity bordering on the marvelous Cohn indulged himself in the pursuit of a calculation, reaching the conclusion that the progeny of a single bacterium, unchecked in growth, would in the course of three days reach the apalling weight of fifteen million pounds Troy, and in five days fill up a space of 928,000,000 cubic miles, the estimated capacity of the entire ocean But while some such calculations may be justifiable to convey some adequate idea of the degree to which the earth and the air may be filled in a few days during the prevalence of an epidemic, it must be remembered that it was flights of fancy like these that first brought the germ theory into discredit and derision Check is put upon the development and reproduction of all bacteria by the lack of nutrition, which sooner or later must ensue, as well as by the inimical action of different varieties upon each other Thus the bacteria of decomposition cease to multiply and perish by the myriad so soon as the material of their food is converted into inorganic matter, the bacteria of fermentation are destroyed, or their reproduction checked by the alcohol which they form, the bacteria of cholera with dessication, etc The bacteria of most diseases perish with the death of their host, as well as from various other causes in life, as by the fever they evoke, or are themselves destroyed by the bacteria of putrefaction

Thus it has been proposed to cure trachoma with the gonococci of gonorrhœa, lupus and epithelioma with the micrococci of erysipelas, and tuberculosis by the inhalation of the bacteria of putrefaction

Spore Formation —The conditions affecting the process of fructification are of extreme importance to the proper understanding of the cause and prevention of acute infectious disease A single bacterium is made up of several cells of parts, of which each cell forms one spore Pasteur first recognized these "brilliant corpuscles," but it remained for Koch to determine their significance, and for Prazmowski and Hueppe to establish their supreme value from the point of view of differential diagnosis The difference in the method of spore formation is also a chapter of itself which could find no discussion in the limits of this report It is enough to say here that characteristics of specific bacteria are as definitely determined in the observation of these phenomena as in the effects of inoculation Spores constitute the permanent forms

Endospores and Anthrospores —There is now quite general acceptance of de Bary's division of all bacteria into classes, one multiplying by endospores and one by arthrospores Endospores are spores evolved from protoplasm in the body of bacteria in such a way that the spore forms its own membrane, while an arthrospore is a transformation of an entire part or cell of a bacterium, the membrane of the bacterium forming the membrane of the spore True bacteria develop by endospores Such are the pathogenic bacteria, whether in the form of micrococci, as of erysipelas, pneumonia, gonorrhœa, suppuration, bacilli, as of tuberculosis, syphilis, leprosy diphtheria, milzbrand, glanders and typhoid fever

Spores are distinguished from micrococci by their bluish, opalescent cast, their high refractive power, and their obstinacy to color, because of the impermeability of their membranes Strong acids and extreme heat, which kill the protoplasm of the bacteria, injure the vitality of the spore membrane, to make it permeable and admit color Under such conditions spores may be colored intensely while the body of the bacterium is only feebly or not at all affected by color Spores of all kinds are characterized by extreme tenacity of life Most endogenous spores remain productive after exposure to 100° C, many even to 130° C Anthrax spores survive a dry heat of 123° C Endospores survive dessication on an average about one year, those of the bacillus subtilis, according to Brefeld, three years Pasteur claimed to have kept spores in hermetically sealed tubes, capable of reproduction after twenty-two years Such long sustentation of life is capable, of course, only under favoring conditions Botanists generally admit persistence of vitality in seeds from ten to twelve years Statements of persistence for centuries, as from mummies' tombs, are considered mythical As a rule, as stated, spores perish in a few years, so that limit is to be put upon the assertion of an enthusiast in antisepsis that ' time does not destroy septic dirt "

Bacteria of the Alimentary Canal—The surface of the earth is the bottom of an ocean of air teeming with micro organisms of every description The origin, character and distribution of these germs is a subject of itself Myriads of them, among others, pathogenic germs are ingested and inhaled every day The alimentary canal throughout its length is described as a rich garden of vegetating bacteria Most mature forms ars destroyed in the stomach under the action of the gastric juice, but many spores, and some mature forms—sarcinæ for instance—escape to reach the intestine with all the favoring conditions of a hothouse The mycologists speak of the flora of the feces, in fact, masses of feces are almost wholly masses of bacteria

Bienstock, who has made a special study of these bacteria, succeeded in isolating one bacillus endowed with the specific property of decomposing albumen and fibrin Cultivated to obtain sufficient quantity it separates albumen and fibrin through all the successive stages of decomposition with its gases down to its final products, carbonic acid gas, water and ammonia No other bacteria have this property Artificial albumen is not attacked, and casein is not touched by it Hence it is that the stools of sucklings emit no fecal odor

These bacteria of the intestinal canal belong to the class of *saprophytes* They have to do with the resolution of organic into inorganic matter, and they are hence the greatest friends of man They have no power of penetration to the blood It is now almost universally conceded that no germs exist in the physiological interior of the healthy body No germs exist in healthy blood An apparent exception proves the rule In a number of observations with negative results, Klebs once found bacteria in the blood of an apparently healthy dog It was subsequently learned that bacteria of decomposition had been previously introduced into this dog in an experiment on wound sepsis The animal had long since perfectly recovered The germs found by Klebs had still survived, and were remaining at the time of the *observation quiescent* It was an observation useful also in illustration of the latent stage of disease But even useful saprophytic germs become dangerous when they do enter the blood through breaks, sloughs or ulcers formed by pathogenic germs Such secondary saphrophytic immigration occurs in diphtheria, typhoid fever and small pox as to have until recently occasioned much confusion in the recognition of the true pathogenic germs Invasions of this kind, independently of these diseases, are probably responsible for many non-infectious septicæmias of surgery and obstetrics, as well as for many vague "rheumatisms," malarias," "colds," "teethings," and "gastric fevers" of internal medicine

Pathogenic micro organisms enter the blood through solutions of continuity in the surface of the skin and mucous membrane, including the lungs The germs of tuberculosis, pneumonia and all the acute exanthemata probably enter the blood by way of the lungs, which permit the passage of larger and grosser matters in the dust of coal, iron, etc Each micro organism has its own history in its preference of site, *mode of invasion, dissemination* and effect upon the tissues of the body A notice of one or two of the best studied will serve in illustration

The micrococci of erysipelas are deposited upon the epidermis at some break of the surface, which break may have entirely healed by the time the disease is recognized, to distribute themselves chiefly in the lymph vessels of the skin and subcutaneous fat Hence the superficial character of the disease They multiply, according to Fehleisen, in a direction opposite to that of the lymph currents They are never found in the blood or in distant organs

The bacteria of decomposition take quite a different course One set, the staphylococci, multiply in the connective tissue without entering the lymph vessels, another set, the streptococci, enter the lymph vessels and follow their course to constitute the lymph—angiectatic processes Suppurative phlegmonous tracts indicate their presence

The micrococci of gonorrhœa are endowed with the property, according to Bumm, of penetrating to and multiplying in the protoplasm of the urethral cells to effect their dissolution Hence they are distributed by the lymph vessels or are carried directly, to be found in the bladder, kidneys, Bartholine glands, periurethral abscesses, rectum, neck and body of the uterus, sacs of the conjunctivæ, and *joints of the knee*

The bacillus tuberculosis, which is at the present time perhaps the most universally distributed of all pathogenic germs, finds less ready victims than that of cholera and milzbrand, because of its immobility, its slower growth and less poisonous products On account of these factors the extension of the disease in the body remains, as a rule, circumscribed Wandering cells sometimes carry it, but its transfer to distant organs, bones, joints, testes, meninges of the brain, etc, is chiefly effected by a quite accidental irruption into blood and lymph vessels Thus, Weigert has demonstrated at local depots the erosion of and penetration into the walls of veins, Koch a direct irruption into small arteries, and Ponfick the perforation of the thoracic duct with the sudden inundation of the whole body to constitute the clinical picture of miliary tuberculosis Thus, also, is easily explained the sudden aggravation of tuberculosis in latent, quiescent and convalescent cases of the disease

Eberth and Gaffky likewise describe the penetration by typhoid bacilli of the intestinal mucous membrane, with subsequent infiltration of the submucous tissue, muscular coat, mesenteric glands, and escape thence into the blood to accumulate in the spleen Hein claims to have discovered them in the spleen during life, but Frænkel and Simmonds (*Die ætiologische Bedeutung des Typhus Bacillus*, Hamburg and Leipsic, 1866), with good reason discredit this claim, though they were able to make pure flat cultures from the spleen post-mortem in twenty-five of twenty-nine cases The bacilli of typhoid fever increase in the spleen so rapidly soon after death as to render their detection easy

The Effect upon the Tissues of the body presents the same differences as the effect upon culture soils outside of the body, and here again each micro organism shows its own peculiarities The superficial catarrhal and diphtheritic processes, parenchymatous infiltrations, coagulation necroses, neoplasms, etc, coarsely correspond to the alterations observed in the artificial culture soils

Erysipelas, again, a surface disease, open to inspection, offers in the studies of Fehleisen perhaps the most accurately recorded observations in this regard Fehleisen found that he could distinguish four layers or zones of inflammation The first, the peripheric, extended about one centimetre beyond the reddened and elevated border wall It showed no visible lesion, either in color or thickness, though its lymph vessels were stuffed with micrococci The wall mentioned is itself the second zone, the zone of inflammatory reaction It consists of the rapidly multiplying micrococci with wandering cells which have partly taken up, included or ingested the bacteria, to finally displace and substitute them altogether A small celled infiltration with a total absence of bacteria marks the third zone, while the fourth shows only pallor or anæmia of the skin in process of restitution *ad integrum* The accompanying fever and gastric catarrh—out of all proportion at times to the extent of the disease—are the results of chemical changes induced by the micrococci

The fact that the same local phenomena are present in erysipelas migrans without constitutional signs, would indicate that this disease is due to a different, though allied germ Rosenbach found this disease often in individuals whose avocation deals with animal matter Slight wounds of the hands in butchers, tanners, cooks, are frequently points of origin for a brownish red infiltration which takes the precise course of erysipelas From this infiltration he was able to cultivate a special micrococcus inoculable by puncture, to produce the same condition

True erysipelas is entirely unattended with suppuration or other destructive change than fatty degeneration of the epithelial cells and restitution by new formation Suppurative or phlegmonous processes indicate a mixed infection with the staphylococcus or streptococcus which produce this condition The supervention of a still graver complication, gangrenous emphysema, is due to another micro organism, this time a bacillus, of entirely different nature, whose effect is to produce hæmorrhagic infiltration of the deeper muscular structure, with the development of the gases of decomposition

Action of Micro Organisms on an Internal Surface —A good illustration of the action of micro organisms on an internal surface soil is offered by Loffler in the growth of the dumb bell bacillus of diphtheria, which produces deep and extensive layers of false membrane in the fauces, pharynx, and trachea The glutinous and pultaceous mass thus formed is a quicksand to catch and entangle the myriads of micro-organisms ingested and inhaled, in such inextricable confusion as to have made it for a long time impossible to pick out the specific cause of the disease Beneath this superficial layer Klebs and Loffler at last succeeded in finding a special layer containing numerous cells among which, aggregated in small colonies, were special bacilli which admitted intense coloration with methyline blue The layer beneath this again, directly superimposed upon the dilated vessels, is a fibrinous mass composing the bulk of the false membrane It contains but few cells and no bacteria, and represents the product of reaction of the mucous membrane to the virus of the bacteria This deepest layer is produced by the coagulation of a fibrogenous exudation which escapes from the blood-vessels and opposes a barrier to the further advance of the bacilli Breaks in this barrier permit the absorption of the virus emanating from the bacteria or their products, to produce the constitutional symptoms of the disease

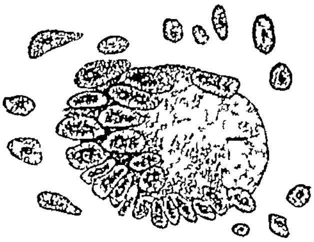
Production of Neoplasms by Bacilli —The bacilli of tubercle, leprosy, syphilis and glanders affect the soil of their selection in the body quite differently, in that they produce granulation tumors, neoplasms characterized by a tendency to rapid dissolution by fatty or calcareous degeneration The cellular element of these tumors resembles that of the lymph glands Taking tubercle as a sample, they are round cells, of various size, the medium size resembling a white blood corpuscle, with small, round, shining nuclei, provided with nucleoli The large cells contain two, even up to twelve nuclei Accumulation of these cells constitutes the nodule which the old anatomists named tubercles

A tuberculous mass, on schematic section, shows an outside ring of round cells provided with a single nucleus about a narrow ring of epithelioid cells, which finally enclose one or more giant cells The bacilli of tuberculosis are found in all parts of the tuberculous mass, free—that is, between the cells—as well as in the interior of the cells

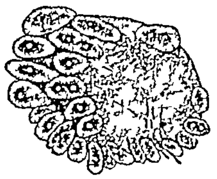
Behavior of Bacilli in Giant Cells —But the most characteristic as well as curious phenomena are presented in the behavior of the bacillus in giant cells, a question which brings the subject to its most intimate ultimate relations

The giant cell, as is well known, is distinguished by the number of its nuclei, as well as by its size When now but a single bacillus penetrates to the interior of a giant cell, whose nuclei are disposed about the circumference of the cell, it is commonly found in the free space at or near the middle of the cell But it is more common to find all the nuclei grouped together at one end, with the bacillus at the opposite, often at the extreme opposite, end of the cell The poles of the cell are thus occupied, one by the nuclei, the other by the bacillus Thus they stand facing each other like foes, and it is impossible to resist the conclusion that there exists between them an antagonism which keeps them as far as possible apart

When two bacilli are present it is not unusual to find one at each end or pole of the cell, while the nuclei are all grouped about the centre or equator, or the relations being changed, the bacilli are disposed at the equator while the nuclei are grouped at the poles It looks, Mittenzweig says, as if each group of nuclei was holding a bacillus in check When the number of bacilli is greater, they do not long remain in this passive state For they are soon to be seen at different places in the cell, close to and between the nuclei, with their long axes perpendicular to the surface of the cell The wall of the nucleus is thus broken down and the giant cell succumbs Groups of bacilli are thus found arranged in stellate form, but no longer surrounded with nuclei

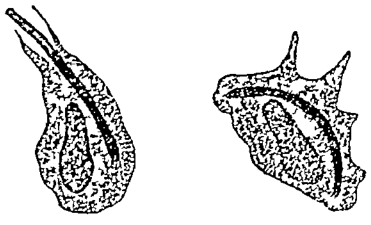


The Bacillus in the Giant Cell



Koch concludes, hence, that the penetration of an epithelioid cell by one or more bacilli is the *first step* or stage in the origin of a tubercle The virus or poison emanating from the bacillus irritates the cell to such degree as to lead to increase in its size and multiplication of its nuclei, in other words, directly to produce the giant cell The irritation extends to neighboring cells, to induce hyperplasia, and to vessels, to lead to emigration of the white blood corpuscles Meantime, the struggle continues in the giant cell, to end occasionally in the destruction of the bacillus, but far more frequently in the triumph of the germ They then break through the circle of nuclei, *escape from the wall of the cell to attack new* cells with similar fate The ruptured cell suffers necrosis, the plasma current ceases, plasma and nuclei coagulate, nuclei are broken up into debris, and the whole cell is converted into a homogeneous, inert, dead mass The condition may be arrested at this stage, as in the spleen, or may, as is usual elsewhere, suffer a later conversion into caseous matter Bacilli which have not escaped to other cells perish with the death of the cells, their hosts Syphilitic neoplasms show the same phenomena, except that they are more prone to undergo fatty degeneration, resorption and cicatrization (Mittenzweig)

Bacteria in the Blood current —The conduct of bacteria in the blood current itself or their effect or action upon the elements of the blood is but little known In most cases the stay is too short for any permanent effect But one curious observation has been made by Metschnikoff concerning the bacilli of milzbrand and the white blood corpuscles, which throws light upon the question of susceptibility and immunity of disease With suspicion based upon the familiar fact of the absorption of food and foreign bodies into the interior of amœboid bodies, by protoplasmic protrusions and inclusions, and more especially upon the observation of a disease in small crustacea caused by the entrance or ingestion of a peculiar sprosspilz into the coloring blood corpuscles of the animal, Metschnikoff concluded to study the relations of the milzbrand bacillus to the white blood corpuscles of vertebrate animals He soon discovered that the blood corpuscles of susceptible animals (rodents) only exceptionally incorporated virulent bacilli, *whereas the blood corpuscles of insusceptible* animals (frogs, lizards) took them up abundantly Being thus ingested or included they soon perish in the interior of the cell, to finally entirely disappear The same fate awaits milzbrand bacilli in the bodies of susceptible animals, when the virulence has been attenuated or abstracted in any way, as by artificial heat



Leucocytes as Phagocytes

Immunity —These observations, should they meet with wider confirmation, must throw light upon the obscure subject of immunity conferred by an attack of disease against its repetition, as well as upon protective vaccination For we lack as yet a sufficient or satisfactory explanation of the immunity thus conferred, though three plausible hypotheses have been proposed The first is the theory of exhaustion, which assumes that the germs of the disease exhaust the elements in the blood necessary to their nutrition Something analogous to this is seen in vegetation of higher structure, which cannot be made to grow indefinitely in the same soil The second is the antidote theory, or the theory of antagonism, which supposes that certain products evolved from the soil in the multiplication or growth of germs react upon them fatally The analogy here is found in the process of fermentation, whereby the torulæ cease to produce themselves, *become quiescent and sink to* the bottom of the vessel as soon as the proportion of alcohol reaches twenty per cent There is reason to think that the fever evoked by micro organisms is in some cases fatal to their growth and life. The third is the theory of accommodation, which maintains that the tissues in their first struggle with the micro-organisms acquire a higher degree of energy or vitality, whereby they are enabled to endure or resist future attacks. Perhaps a simile may be found for this hypothesis in the process known as acclimatization.

Incorporation and Absorption of Germs.—The observations regarding the incorporation and absorption of non-virulent or less virulent germs tend to support the theory of accommodation. For it would follow from them that protective vaccination, or more properly inoculation of weak bacteria, must confer upon the blood corpuscles the power to incorporate and destroy virulent bacteria. When protection is not sufficiently secured at once by a certain grade of attenuation, it might be accomplished by successive attempts with gradually increasing potencies. Thus successive inoculations of gradually increasing virulence would finally permit the introduction into the body of the most intensely virulent bacteria with impunity. It is upon this theory that Pasteur bases his claim to secure prophylaxis in hydrophobia, a disease in which sufficient time lapses, as a rule, between the wound and the symptoms to make experiments even after the wound, in the hope of anticipating the attack of the disease. The fact that virulent bacteria are not absorbed would indicate, in the absence of any morphological difference, the presence in these bacteria of some chemical substance which antagonizes the cell. Moreover, the character of the constitutional symptoms; sopor, stupor, coma, delirium, which supervene in cases of grave acute infections, speak in favor of this view, and against the belief that bacteria act mechanically or by the abstraction of oxygen. In fact, neither the local nor the general signs of infectious disease are ever produced or can be produced in this way.

How do Micro-organisms Produce Disease?—The question now arises, how do pathogenic micro-organisms produce the phenomena of disease? From the rapidity of their multiplication, it might be inferred that the symptoms and lesions of the infectious maladies were caused by the mere presence of these organisms as foreign bodies. But it has been observed that the bacilli of milzbrand alone multiply in the body in such number as to produce extensive occlusions of vessels. Further, it has been shown that no mere mechanical presence, no mere foreign bodies, aniline particles, or granules of cinnabar, ever induce the signs of fever or toxicemia. The micro-organisms of disease live in the body, and must therefore be nourished at its expense, whereby they withdraw from the blood or tissues elements essential for their nutrition. Pathogenic micro-organisms require oxygen. In processes of fermentation outside air is excluded, that the germs of fermentation may be compelled to withdraw oxygen from its soil. Pathogenic micro-organisms multiplying in great abundance seize upon the oxygen of the blood with such avidity as to develop in fulminant forms the symptoms simulated by prussic acid poisoning. But the the other symptoms mentioned do not correspond either to deficient oxygenation or carbonic acid poisoning.

These symptoms indicate toxicæmia, and since the injections of fluids from which bacteria have been separated by porcelain filters remains innocuous, it follows that the toxic agent inheres with the bacteria. Then, inasmuch as blood corpuscles show their reaction against bacteria on simple contact, it follows that the poison must lie upon or issue from their surface.

Ptomaines.—The only hitherto known poisons which may in such minute quantities induce such grave toxic signs are the poisons resulting from the action of the bacteria of decomposition upon organic matter. As these intensely virulent poisons were first observed only in dead organic matter, they were called ptomaines (from πτῶμα, the fallen, a corpse, hence more grammatically ptomatins). These matters, the ptomaines, though so newly known, have received so much attention in the past year as to form a subject in themselves. It may be said here that some cadavers develop no ptomaines, that ptomaines are developed as putrefaction advances in the course of weeks, next that they are also found sometimes in animal products, as in cheese, urine, fæces, etc., and lastly, that many ptomaines are perfectly innocent. Then it might be added that many phenomena attributed to their action have been found due to simpler causes. Thus the claim of Passet that any one of the eight forms of bacteria which he cultivated from pus would coagulate sterilized milk were found to rest upon simple lactic acid fermentation.

Brieger, who has made the most exact observations, operated with the Koch-Eberth bacillus of typhoid fever, which he cultivated from the spleens of fatal cases, and found to be identical with the pure cultures in the laboratory of Koch. These bacilli thrive in solutions of sterilized grape sugar, to which have been added the proper nutritious salts. This clear fluid, kept in sealed tubes at a temperature of 30° C., becomes opaque in twenty-four hours after introducing the bacilli, and emits, on opening the tubes, a distinct odor of ethyl alcohol, which increases from day to day. Besides the ethyl alcohol, there develop small quantities of volatile fatty acids, together with acetic acid in large quantity. The typhoid bacillus has also the property of inducing in solutions of grape sugar the lactic acid fermentation. Sterilized bouillon or minced meat used as soils, soon become alkaline, but develop, even after the lapse of eight weeks, none of the products or gases of decomposition. From these as from all albuminous cultures, Breiger was frequently but not always able to obtain a basic product which gave the chemical and physiological reactions of a ptomaine. In guinea-pigs it produced a slight ptyalism and an increased rapidity of respiration, to be followed later by a loss of power in the muscles of the extremities and trunk, without a distinct paralysis. There is diarrhœa throughout, death takes place in twenty-four to forty-eight hours. The same observer is now experimenting with the septic diseases whose abnormal temperature elevations, interruption of functions, benumb ing of the intellect, perverse action of the digestive apparatus indicate abnormal chemical changes in high degree

Nicati and Reitsch, Villiers, Pouchet, have all made similar investigations with the bacteria of cholera According to Pouchet, chloroform extracts of cholera dejections furnish an easily oxydisable and intensely poisonous oily substance which is certainly a ptomaine Mere traces of it introduced into the bodies of frogs induce retardation of the pulse, with speedy death attended by muscular rigidity

Villiers also succeeded by the method of Stas in isolating a ptomaine from the intestines, kidneys, liver and blood in two cases which had succumbed to cholera It was abundant in the intestines, but very scant in the blood It had a sharp taste and an odor like the flowers of the white thorn It had no effect upon frogs, but caused in guinea pigs retardation of the pulse, *tremor and death*

According to the same author cultures of the cholera bacteria have a peculiar ethereal odor which is not unpleasant Solutions of this culture not over eight days old in bouillon or gelatine filtered free of bacteria, injected into the blood of dogs induces diarrhœa and great depression, with dyspnœa, disturbances of motion and sometimes death

These experiments are cited merely as samples to show the direction of research at the hands of the most advanced observers in the past year They indicate the lines of study by means of which we shall be able to combat the cause of infectious disease in a direct way They show us that the time is at hand when, as Brieger observes, we may as practitioners of medicine no longer be compelled to rely upon a raw empiricism, when we may find a specific therapy, if not remedy for a specific cause, since we have already learned that the accumulation of certain products of bacteria kill them They show us *that inflammation is not the cause but the effect of* disease which is caused by infection They show us the direct road to cure through comprehension of the nature of infection

ORIGINAL ARTICLES

SUGGESTIONS ON THE PURITY OF CHICAGO DRINKING WATER[1]

BY H GRADLE, M D

EYE AND EAR SURGEON TO MICHAEL REESE HOSPITAL

No question of local sanitation has been more often and less intelligently discussed in Chicago, than the purity of our drinking water While alarmists have filled the newspapers with sensational exaggerations, our authorities have denied all danger on grounds insufficient to prove the point

The starting point of any discussion must, of course, be the fact, that the sewerage of this enormous city is carried into the lake—the source of our drinking water, whenever the current of the river runs towards the lake, which occurs a large part of the time Now, as there is no direct evidence that any one disease or class of diseases are due solely to the drinking water thus contaminated, how can we decide whether any danger to health lurks in this water? Chemical examination can only tell us whether organic material exists to a larger extent in our drinking water than it does in other parts of the lake remote from our shore, or than it did in the same waters many years ago

But a positive result of such analysis would not necessarily condemn the water unless there were an excess of albuminoid ammonia larger than the limit shown by experience to be safe in drinking water

On the other hand, when the analysis shows no marked change in the quantity of organic constituents in the water, it does not decide the question as to the safety of the water For there is no reason to think that in our present case, where the sewerage is diluted by the enormous body of water in the lake, there can be enough of any chemical substance present to produce any poisonous effects A chronic poisoning or a cumulative effect produced by the continued ingestion of an *organic* poison in such small quantities as not to produce any immediate sensible action is not known, and such a possibility is a gratuitous assumption not based on clinical evidence We are forced, therefore, to look for living micro organisms in any suspicious water—for at the present no other *direct* causes of diseases are known

The algæ and diatoms, and occasional infusoria, figured by amateur scientists in the newspapers as existing in our drinking water, are about as harmless as any other vegetable or animal tissues we might eat as food It has never been shown that they are really poisonous or parasitic to the body The micro organisms which demand our attention as suspicious, are the bacteria Since they are not numerous in any but stagnant water, the direct examination of the water with the microscope teaches very little Besides, hardly any variety likely to exist in the water could be identified on finding a specimen or two with the microscope

In order to tell what there is in the water, we must do exactly as if we had a few seeds mixed with a lot of sand, and were unable to recognize them We would sow them over a large surface of ground free from other plants and wait for the result,—identifying the plants as they grew up

I have made a few such analyses of our lake water, according to the methods devised by Koch The sample bottles with flat sides which I show you here, are thoroughly cleansed and boiled, and then partly filled with a small quantity of nutrient gelatine and their mouths plugged with cotton The bottles and their contents are then sterilized by heating them in a steam bath for a few minutes on several successive days This being properly done, they will keep forever without the occurrence of any bacterial growth in them If now one or more drops of water flowing from the faucet or received in a sterilized beaker are dropped into these culture bottles while momentarily lifting the cotton plug, any bacteria or their spores thus introduced with the water will grow *in the gelatine* If the drops of water are thoroughly mixed by shaking with the gelatine liquefied by gentle warming, the germs will be separated from each other, and on letting the mixture suddenly congeal on the large surface of the flat side of the flask, and keeping the flask at a temperature of 18 to 22° C., the number of colonies of bacteria growing in the gelatine will indicate the number of germs contained in the water. Within 36 to 72 hours according to the temperature, the colonies grow sufficiently large to be counted with the naked eye.

---

[1] Read before the Chicago Medical Society, May 3 1886

In order to identify the species we must note the appearances and size of each colony, and then examine with the microscope the cells composing such a colony, both in the fresh state and after staining. If this be insufficient to recognize the variety, we must make fresh cultures from such a colony in other and different cultivating media, or finally test for pathogenic properties by experimentation on living animals.

There is, however, a limit to the capability of this method, viz. our want of familiarity with all the pathogenic species of bacteria. Apart from cholera we know only one disease which has been traced in some instances to impure drinking water, and of which we can identify the causative parasite, viz. typhoid fever. It is very likely that there are other intestinal disorders of parasitic origin—the different forms of enteritis and dysentery, the germs of which may be at times introduced by means of impure drinking water. But this could not be proven at present, because we do not know as yet the presumable germs of these diseases. It is also not impossible that the bacilli of tuberculosis, or their spores, may sometimes enter the system through the alimentary canal. Whether any other but intestinal affections can be started by entrance of their causative parasites through the digestive tract, is not known in the case of any diseases of man, but judging from the mode of introduction in animal anthrax, which is most frequently intestinal, this is not an improbable occurrence.

In the culture analysis which I have made, I have counted from 35 to about 50 germs per drop of our hydrant water—equivalent to about 1000 to 1500 germs per cubic centimetre. This is much more than Frankland found in London drinking water (from 8 to 70—extreme 382), and more also than was obtained by the German Board of Health from the Berlin water (usually from 20 to 100 or 200—sometimes to 400, exceptionally), though the latter contained as much as 1000 germs in each centimetre, before filtration in the water works. However, as bacteria exist in all fresh waters on the surface of the earth, there is nothing in this indicating any special impurity, for as we can judge from every day experience, the immense majority of these bacteria are harmless. In my earliest observations, last summer, I counted six different varieties in my flasks. Since then my time and facilities did not permit me to continue the very tedious microscopic research necessary for differentiating the colonies. But from the gross appearances of the colonies with which the first observations made me familiar, I would say that only three or four kinds of bacilli are common, while other kinds of bacilli and occasional micrococci and spirilla are less frequently found. Many, if not most of the micro-organisms in our hydrant water exist in the form of spores, which are not killed by momentary boiling. On staining the residue of a few drops of water evaporated on a slide, there are indeed very few developed forms found. I need hardly add that I have not identified any pathogenic varieties.

Although these few analyses would, therefore, not entitle me to say that our water contains any deleterious matter, I do not see how we can escape the conclusion that there is really danger, however slight, in the use of our lake water. There were last year about 500 deaths from typhoid fever in this city. This means, perhaps, 5,000 to 6,000 cases of that disease. The discharges of all these patients contained typhoid bacilli, which were carried into the lake. Though the bacilli may die speedily in the water, their spores persist for days, if not for weeks and months. Is it at all conceivable that the currents should not carry at least some of them at times into the crib and water-pipes? I will not insist on the possibility of the discharges of different forms of diarrhœa and dysentery reaching us in a diluted form in the drinking water, because, as I said before, we are not yet familiar with the germs of these diseases, and do not know whether they produce persisting spores. Indeed, outside of typhoid fever, I could not name any danger threatening us in the water, if I depended *only on the known facts*, but analogies and probabilities suggest a great deal more. The enormous dilution to which the sewerage is subjected when carried into the lake, reduces, of course, the probability of infection through drinking water very much, but does not remove it. The self-purification of water, which undoubtedly occurs through the starvation of the micro-organisms, and their deposition, and perhaps oxygenation, pertains principally to the developed forms and not nearly so much to the spores. In short, we cannot but reason that of the millions of disease germs poured into the lake, some few must find their way back into the systems of some of those who drink it.

Of all the purifying processes of drinking water, boiling is the simplest. About twenty minutes vigorous boiling deprives the water completely of all living germs. But the flatness of boiled water, as well as the turbidity which the Chicago water commonly presents, renders filtration desirable. Frankland has found that sand or coke, or spongy iron, in layers of about six inches thickness, remove nearly, if not all micro-organisms from the water filtering through them, but that this retaining power decreases steadily in the course of weeks. As far as I have learned, most of the filters here in the market contain sand or charcoal, and as I have been told by parties using them, many do not furnish water as clear after some weeks or months as they do at first. The layer of filtering material is neither thick enough nor sufficiently packed to retain all bacteria, and should besides be changed from time to time. One charcoal filter which I tested gave a clear water, containing, however, nearly as many germs as the original hydrant water.

A filter on a different plan, and which I have examined more minutely, is the Mallie Aerifilter (French patent), similar to the one devised by Pasteur's assistant, Chamberland. It consists of a cylinder, with conical end, made of unglazed white clay, screwed water-tight to the faucet, and surrounded by a protective glass cap. If there be sufficient pressure in the pipes, the water filters through this clay cylinder drop by drop, to the extent of some two to four gallons per day (in Chicago). All visible solid particles are left in the interior of the cylinder, in the form of a slimy coat, which should be washed out once in two to four weeks. The muddy washings from this cylinder gives one a rather exaggerated idea of the dirt we are forced to drink. The microscope shows it to consist of about half of living bacteria and brilliant particles (presumably spores), the other half being clay and sand, with occasional vegetable cells and fragments. The water furnished by this filter is of remarkable transparency. The very residue in the filter shows that very few bacteria can have passed through into the water, but I cannot say that it is absolutely perfect, as would appear from a testimonial given this filter in the Municipal Laboratory at Paris. On testing the water, by allowing drops to fall from the filter into gelatine flasks, I have found that when the filter was well cleansed within some hours the water was entirely free from micro-organisms — but when the filter was left undisturbed for days and weeks, a few colonies were invariably obtained, usually less than one-tenth the number contained in the original water. There were, moreover, not so many varieties as in hydrant water —generally but one or two. I have some reason to think that most of these bacteria found in the filtered water did not pass through the filter, but that the very few germs which did pass through, or which possibly came from the air, multiplied to some extent in the film of water between the clay cylinder and the surrounding glass, for it is well known that even distilled water allowed to stand for hours harbors numerous bacteria. I judge so from the fact that after cleaning the surface of the clay cylinder with a sterilized brush and with water previously boiled, and readjusting the glass cap after purification by boiling water, the filtrate was usually free from micro organisms for several hours. This multiplication of bacteria on the surface of the filter does not detract from its merits, because in a film of water containing as little organic matter as ours, no bacteria of parasitic habitat, and hence, at all dangerous, could multiply.

MEDICAL PROGRESS

THE ACTION OF UNNA'S PLASTER-MULLS.—In his observations (*Deutsche medicinische Wochenschrift*, December 17, 1885) L. HOFFMAN refers especially to the gutta percha plasters. These have advantages over the salve muslins (Salbenmulle), they are permanent, adhesive, comfortable, cleanly, and are more active.

The boric acid plaster proved of value in leg ulcers. A new plaster, large enough to cover the hardened border of the ulcer, was applied daily, later, after the surrounding parts had become somewhat softened, it was applied to the ulcer only. The ulcer became gradually smaller, the last part being healed by a weak nitrate of silver ointment. Four cases are given, in all of which the result was favorable. In the treatment of bedsores this plaster also acted admirably.

Chrysarobin plaster (18 per cent. strength) gave excellent results in psoriasis. In its use there was no danger of the chrysarobin-conjunctivitis, and the erythema produced by the drug did not extend beyond the parts covered by the plaster.

In several cases of eczema in which the disease was dry and circumscribed, oxide of zinc plaster was employed and effected rapid cures. In the more severe forms the zinc and tar plaster was found efficacious. In obstinate cases naphthol plaster (10 per cent. strength) was tried with satisfactory effects. This last plaster proved useful also in a case of beginning lichen ruber.

Salicylic acid plasters are recommended for the treatment of infiltrated patches of eczema, also in verrucous and sclerous patches. This plaster also acts well in epidermal hypertrophies, as clavus and callositas. In clavus salicylic acid and mercury plaster is preferred on account of its being less painful. Salicylic acid plasters were found of value in the vegetable parasitic diseases, also in lupus and acne rosacea. The pain that the stronger salicylic acid plasters sooner or later give rise to, may be moderated by the use of those containing 15 per cent. of extract of cannabis indica.

The mercury and carbolic acid plaster gave good results in furuncles. It acts differently according to the stage of the lesion. If applied in the beginning, the furuncle is aborted, if suppuration has set in, the same continues, but the process is painless. The frequency of renewal of fresh plaster depends upon the amount of suppuration. This plaster acts equally well in other phlegmonous inflammations.—*American Journal of the Medical Sciences*, April, 1886.

COCAINE IN CIRCUMCISION.—DR. JOHN MADDEN, of Wisconsin records a case in which he used a 4 per cent. solution of muriate of cocaine in circumcision.

Four points, practically equidistant, were selected upon the line of the intended incision, the hypodermic needle inserted, and about one fourth of a drachm of the solution was injected beneath the skin at each of these points. A piece of absorbent cotton was then saturated with the fluid, and placed in contact with the preputial mucous membrane. Testing the sensibility of the parts from time to time, by pricking with a needle, in about twenty minutes the sense of feeling was almost entirely abolished. The foreskin was then drawn forward, held between the blades of a pair of dressing forceps, and quickly ablated with a knife. The patient declared that the operation gave him no pain nor sensation of any kind, except ing in one small place on the left side. I noticed, however, that the solution had filled the subcutaneous tissue beneath this place. The mucous membrane was next caught up, and quickly cut off with a pair of scissors. Its sensibility, though very much lessened, was not entirely destroyed, and the patient complained of some pain. The operation was completed by stitching the mucous membrane and integument together, the former growing more painful towards the end of the operation, while the latter preserved its anæsthesia.—*Therapeutic Gazette*, April 15, 1886.

THE SUGAR-FORMING FUNCTION OF THE LIVER.—In response to Hofmeister's recent adverse criticism (*Archiv f. exp. Path. und Pharm.*, xix.) of the view that sugar was formed in the liver out of peptone, PROF. SEEGEN, of Vienna, gives the details of some experiments in which he found that the quantity of nitrogen yielded from 100 c.c. of fresh arterial blood mixed with fresh liver tissue, and treated with a current of air for some hours, was greater when a small quantity of peptone had been added. The quantities of nitrogen in six experiments were:

WITHOUT PEPTONE	WITH PEPTONE
0.113	0.300
0.050	0.105
0.043	0.092
0.114	0.252
0.140	0.216
0.070	0.159

The peptone and other proteids having been completely removed before the nitrogen was estimated, it must have come from the products of decomposition of nitrogenous materials and it appeared doubtless to him that in the presence of arterialized blood the liver cells split peptone into sugar and some crystalline nitrogenous product, and he believes that at least in the case of carnivorous animals, one of the chief duties of the peptone is to form sugar.

In a second paper Prof. Seegen gives three experiments on dogs by which he attempted to settle finally the vexed question whether a diet of cane sugar causes sugar to appear in the urine. He found both cane and inverted sugar in the urine in all three experiments.

In a third paper he brings forward elaborate arguments to prove that the production of sugar in the liver is not—in contradistinction to the production of glycogen—interrupted by inanition or increased by abundant carbohydrate ingesta, but is an independent and unintermittent function of the tissue changes.—*Archiv f. d. Gesam. Physiologie*, Bd. xxxvii, November 5, 1885.—*American Journal of the Medical Sciences*, April, 1886.

EMBOLISM OF THE AORTA.—DR. VINCENZO CAMMARERI, of Naples, has published a memoir upon Obliteration of the Abdominal Aorta, which is summarised in *Le Progrès Médical* (No. 13). He has collected all the cases on record, starting from Barth's case in 1835 and Romberg's ten years later. In the majority the cause is embolism proceeding from the ventricle, the embolus being arrested at the bifurcation of the aorta, and leading to secondary thrombosis extending upwards—rarely above the level of the renal arteries—and downwards into the iliac arteries and their branches. The event is marked by the sudden appearance of complete and painful paraplegia. The sphincters are generally unaffected. Sometimes there is tetanic rigidity of the lower limbs; the reflexes and sensibility are abolished. Often in addition there are other symptoms—as hæmaturia, ischuria, suppression of urine, rachialgia, acute decubitus, etc. Whether a fatal result occurs rapidly or not depends upon the extent to which the vessel is obliterated; in some cases, owing to partial obstruction or to a certain amount of collateral circulation, life has been prolonged for several weeks, or even months. The paraplegic symptoms have been ascribed by some to anæmia of the muscles, by others to anæmia of the cord; but the writer demurs to the latter explanation, except in cases where the coagulation has extended high enough to block the lumbar arteries; but even here he thinks the paralysis may be explained by interference with the muscular nutrition. Experimental ligature of the lumbar arteries in the dog produces paresis of the hind limbs, but the paraplegia equally follows the infliction of the wound without ligature. The author then explains the muscular paralysis following upon obstruction of the aorta as being due to the absence of oxygen and the presence of an excess of carbonic acid in the tissues. In like manner he explains the absence of reflexes; whilst the occurrence of muscular rigidity in some cases is compared with cadaveric rigidity—attributable, that is, to coagulation of myosin, and not to over-excitability of the muscle. The same "asphyxial" condition of the tissues is held to account for the anæsthesia, whilst the symptoms of pain is attributed to irritation of nerve fibres from the presence of products of disintegration, the nerves being rendered excitable by imperfect anæmia or collateral hyperæmia. The lowered temperature, œdema, and gangrene are easily explicable by the stasis that is established, and the supervention of syncope from cardiac paralysis may be due to heightened arterial tension. The frequency with which aortic embolism is associated with mitral stenosis does not appear to be insisted on; but is easy of explanation, since it is especially in such cases that thrombi sufficiently large to block the vessel are found in the auricle.—*Lancet*, April 17, 1886.

DIFFERENTIAL DIAGNOSIS OF DISTENSION OF THE FALLOPIAN TUBES.—MR. JOHN W. TAYLOR points out what he thinks are the chief marks of similarity and difference between uterine myoma and tubal disease:

1. Menorrhagia may be common to both diseases, but in uterine myoma it is painless, in tubal disease it is very painful.

2. Moderate enlargement of the uterus (from 3 to 3½ inches) is present in tubal distension accompanied by hæmorrhage (as in most cases where metrorrhagia is a prominent symptom); an enlargement beyond this may generally be expected in myoma.

3. The tumor formed by distension of the Fallopian tube is always single or double, and is always posterior to the uterus; nodular myoma is usually multiple, and the situation of the outgrowths variable.

4. The tumor formed by a distended tube, even when chronic and quiescent, is always very tender to touch, whether that touch be from the examining finger of the surgeon, or from the passage of scybala through the rectum; a myomatous nodule, unless inflamed, is comparatively insensitive. Probably, for a similar reason, dyspareunia is a very general symptom of tubal disease, but is almost unknown in myoma.

5. The outline or shape of a distended tube is fairly constant, in possessing a longer and a shorter axis; that of nodular myoma is round or quite irregular.

6. The tumor caused by a distended tube varies in its firmness or consistency, and at some time or other will show signs of elasticity or fluctuation; that of nodular myoma remains hard.

7. Both a distended tube and myoma of the posterior uterine wall may sink lower in the pelvis by causing retroflexion of the uterus; but, apart from this, the former, although not adherent, tends to sink slowly by its own weight; the latter reaches a lower point only by increased growth.

8. When pregnancy occurs, the uterine enlargement being caused chiefly by the development of the muscular tissue of the uterus, a myoma of this tissue will be much more likely to be raised by the growing uterus than a distended tube, which is only adherent, and often but lightly, to its peritoneal investment.

The only other condition that is likely to be confounded with distension of the Fallopian tube is cyst or abscess of the ovary. A special form of cystic disease of the ovary is often, perhaps generally, combined with occlusion and distension of the tubes, and if the latter be correctly diagnosed in these cases, this is sufficient for every practical purpose. But ovarian abscess or cystoma of the ovary in an early stage, the associated tube remaining normal, needs rather careful differential diagnosis from a distended tube. I have found the chief point of difference to be this: that, in cyst or abscess of the ovary, a space can be found between the tumor and the uterus unoccupied by any swelling; in distension of the Fallopian tube, the tumor is continuous with the uterus. By this means I have on two or three occasions diagnosed a cystic condition of the ovary only, when tubal disease has been expected; a diagnosis which has been confirmed by operation.—*British Medical Journal*, April 17, 1886.

EFFECTS OF AN EXTENSIVE FRACTURE OF THE SKULL.—A case of extensive wound of the skull and brain is reported in the Russian *Herald of Forensic Medicine*. The patient was a man who had been struck by a piece of an anvil of about seventeen pounds' weight. The wound extended from half an inch above the concha of the left ear to the right parietal eminence. The fracture of the skull corresponded in length and position with the external wound. In many places it was splintered, the posterior edge of the fracture being raised above the level of the anterior edge. The whole wound was filled with crushed brain substance, partly gray and partly white. There was both motor and sensory paralysis of the right arm. The power of sensation in the right leg was diminished; the pulse was 80 and the respiration 20; the temperature was also normal. The patient was fully conscious and in a peculiarly placid state of mind, being pleased with everything. He forgot, however, a number of abstract nouns and all proper names; his memory for numbers was also affected, and he had forgotten how to read. The wound was dressed with antiseptic bandages, and completely healed in fourteen weeks. During this time ten splinters were removed. The symptoms of amnesic aphasia gradually passed off. The memory for abstract nouns returned in about a fortnight. The placid humor passed away, and the man became decidedly irritable and suffered from insomnia and headache. The paralysis of the leg passed off during the first few weeks. Sensation returned in the arm and movement also, and after three months contraction occurred. After the lapse of eight months the man was still unable to read, and complained of constant headache and great feebleness of memory.—*Lancet*, April 17, 1886.

AN UNUSUAL CARDIAC LESION.—M. DEJERINE made a communication, on Dec. 26, to the Biological Society of Paris, concerning an unusual cardiac lesion causing sudden death in two patients convalescent from typhoid fever. There were no cardiac symptoms during life. At the necropsy there was an absence of lesion, but examination with the microscope showed that the myocardium was broken up. Each fragment was constituted by an isolated muscular cell. There was neither fatty, nor putrid, nor pigmentary degeneration. In both cases the lesion of the myocardium consisted in a separation of the intercellular cement of Eberth, which in a normal condition unites the cells of the cardiac fibres. The phenomenon is observed in patients in an asystolic condition. It is due to the fact that the intercellular cement is dissolved by sarcolactic acid, which is formed in great abundance. There were no bacilli in the myocardium. Landouzy and Renaut have described this lesion in the myocardium subsequent to pericarditis.—*London Medical Record*, March 15, 1886.

SUTURES IN THE HEART.—A paper of Block communicated to the eleventh congress of the German Surgical Society, 1883, on "Wounds of the Heart and their Cure by Sutures," having attracted the attention of DR. PHILIPPOFF, of Kharkoff, he determined to make a series of experiments on dogs and rabbits for the purpose of satisfying himself of the truth of Block's assertion that sutures may, under certain circumstances, be applied to the walls of the heart. Though the Russian observer has not as yet concluded his investigations, he has published a preliminary note in the *Russkaya Meditsina* (No. 11) in which he states that the hearts of some animals will bear transfixion with a fine trocar or a needle, also that wounds of the heart in animals may be cured by means of sutures, but by no means always. He found, too, that the pericardium might be opened in dogs without any serious effects, but that wounds of the large vessels at their exit from the heart were invariably fatal.—*Lancet*, April 24, 1886.

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO ILLINOIS

SATURDAY, MAY 15, 1886

AMERICAN MEDICAL ASSOCIATION, THIRTY SEVENTH ANNUAL MEETING

The thirty seventh annual meeting of the American Medical Association was held in the Exposition Building at St Louis from the 4th to the 7th of May inclusive The number of delegates and members in attendance was unusually large, the registration showing about 1,100 present The facilities for registration were admirable, and everything under the care of the Committee of Arrangements well planned and judiciously executed The address of welcome by the Mayor of the city was appropriate and cordial, and the Chairman of the Committee, Dr Le Grand Attwood, discharged his duties to the satisfaction of all The President, Dr Wm Brodie, of Detroit, delivered his Address in good style, and was listened to with close attention to its close It was given to our readers in full last week Following the President's Address, came the report of the Committee on the Preliminary Organization of the Ninth International Medical Congress The Committee had held a regular meeting the day previous in a parlor of the Lindell Hotel and after learning the progress making by the Executive Committee of the Congress, also in session at the same time, they prepared a brief report for the Association Dr J S Lynch, of Baltimore, Vice President of the Committee on Organization, presented the report to the Association, which simply stated that after mature deliberation and several full meetings of the Committee, they had adopted the *Rules* necessary for the organization and business of the Congress, appointed the general officers of the Congress, the chief officers of the Sections, and a local Committee of Arrangements at Washington, and as under the Rules, the President, Secretary General, Treasurer, and Chairman of the Finance Committee of the Congress and the Presidents of the several Sections constituted an Executive Committee of the Congress with full power, all the further business and management of the Congress, including the filling of any vacancies that might now or hereafter exist, had been transferred to such Executive Committee

The report was, on motion, received, and adopted with a decided degree of enthusiasm, and without an audible negative vote As the very large hall contained at the time about 1000 delegates, representing the Profession of almost every State and Territory of the country, it ought to satisfy all parties at home and abroad, that the medical profession of these United States, in whose name the Congress was invited to meet in Washington, on the first Monday of September, 1887, is earnestly and unitedly engaged in making every necessary arrangement for the cordial reception of a great and truly International Medical Congress, at the time and place appointed

The harmony, good order and enthusiasm thus exhibited during the first session was continued throughout all the subsequent three days' proceedings and to the hour of final adjournment The several Sections were also supplied with a large number of papers and interesting topics for discussion, and the quality of their work will compare favorably with that of any of the general organizations of specialists in this country The full record of the proceedings, as furnished by the Permanent Secretary, will soon reach us, and will be given to our readers without further delay

DR DICKINSON'S WORK ON RENAL DISEASES

We have before us two copies of the third volume of DR HOWSHIP DICKINSON'S work "On Renal and Urinary Affections," the one published for the author by Longmans, Green & Co , of London, with the notification on the title-page that *all rights are reserved*, the other a mutilated reprint, a pirated copy of the result of years of earnest faithful work The latter is issued by a New York firm, as the August, 1885, number of "Wood's Library of Standard Medical Authors" The English edition contains 689 pages of reading matter, the mutilated edition 337 pages Nowhere in the American edition (though we must blush to call such an edition "American") is there any reference to the fact that it is the *third* volume of a work destined to become classical, but it is issued as though it is the complete work of Dr Dickinson

No work in any language has hitherto appeared which contains so much valuable matter in regard to renal and urinary affections as the work of Dr Dickinson He has been more than a decade in preparing the book for publication, and anyone who will give himself the pleasure of reading it will be convinced that the time has been well spent He has brought before the medical public a vast record of experience, and has embodied in the work a large number of most valuable records of clinical cases, occurring in his own practice and in that of other observers While at first blush it might seem that the subject could have been treated of in a much smaller number of pages, a careful survey of the book will show that it is far from being a diffuse work The clinical cases given cannot be looked upon as unnecessary padding, without exception they are interesting and valuable, and the reader will often wish that the author had given more cases The illustrations, as a rule, are good, and well represent what is intended to be shown While we are patriotic enough to wish that such a book could have been the work of an American author, we are not the less most willing to say that we must congratulate the profession on being able to obtain this monument of painstaking work and rich experience

In the mutilated reprint of this volume the American publishers have added the following note to the author's preface "The numerous cases cited in detail in the English edition of this volume have been omitted in this edition in order somewhat to reduce its size It will be perceived that the text of the work has been so prepared that this omission in no degree interferes with its continuity, nor does it limit its authority" Whether this is true will be seen later But the first question that arises is, Where have the reprinters obtained the medical education and authority that entitles them to abolish a large portion of a valuable book, without so much as "by your leave" to the author, and say to the profession We now give you an *edited* copy of Dr Dickinson's work, the original contains a large amount of extraneous matter, but we have cut this out, and at the same time retained the continuity and authoritative tone of the book? The answer is not direct, and may be read between the lines of the announcement quoted above Here is a good book by a foreign author, but it is too large for our "Library of Standard Medical Authors," foreign authors have no rights in America that we should respect, the book is too big, and while we are pirating it bodily we may as well cut it to suit ourselves Besides, very few of those who get our "Library" will buy the original work, and they will never find out that anything of value has been omitted

And now as to the omission which in no degree interferes with the continuity or limits the authority In the first place *eleven* illustrations are omitted in the mutilated reprint In the chapter on Renal Calculus, in speaking of ulceration of calculi into the stomach, is a quotation from Rayer, of almost half a page, which has been omitted altogether In the chapter on Chyluria thirteen and one-third consecutive pages of clinical reports have been omitted, in which, in the original, are two valuable tables In the chapter on Intermittent Hæmaturia or Hæmo-globinuria we find that 39½ pages have been omitted, with a valuable table, though of course such a small omission "in no degree interferes with the continuity" of the book In the chapter on Hæmaturia are records of five cases showing the association in infants of bloody urine with unsuitable food These records are omitted from the reprint, but the paragraph following the omission commences, *as in the original* "The circumstances of these cases," etc[1] In the chapter on Suppression of Urine is a full record of a case quoted from Mr Hutchinson, and a few pages further on the case is referred to by page reference The American editors (!) have omitted the record of the case, but guilelessly refer to it On the same page is a reference to a case reported by Dr Todd, but the record of the case is omitted in the revised American edition Dr Dickinson quotes in full a case from Taylor, of a man who had suppression of urine after taking two drachms of corrosive sublimate The *revisers* say, in a rather lonesome looking paragraph "Taylor relates the case of one John Wright, 38 years of age, who swallowed two drachms of corrosive sublimate, and an hour afterwards was received into Guy's Hospital" While it was perfectly proper that John Wright should have been received into Guy's Hospital after taking two drachms of corrosive sublimate, it would have been somewhat to the point to have said why he was carried there, and what became of him subsequently Taylor says that there was complete suppression of urine, that he survived for four days, and, what is especially interesting, the record of the autopsy is given But the professional experts who omitted this case (without interfering with the continuity of the work) evidently thought it sufficient to give only the name and age of the patient, the amount of the drug taken, and the name of the hospital

We have already said that preservation of continuity and non-limitation of authority demanded that eleven cuts should be omitted Would that some consideration had demanded that many more should have been omitted from the mutilated edition Dr Dickinson would doubtless be surprised to see that the ingenuity of the *editors* has added many things to his illustrations Emboli, thrombolic deposits, Florida moss, bee line capillaries, and scroll work have been generously supplied, doubtless at considerable additional expense to the editors One large cut is labeled "Tuberculous Kidney" It would be more in place in a horticultural guide as a hybrid sun flower

On summing up the total loss we find that eleven illustrations and *one hundred and fifty pages* (plus) have been omitted from the American edition! True, the pages omitted are reports of cases, but they are valuable and necessary for the proper comprehension of the subject Dr Dickinson is not a man who would pad a volume to make a show, and he is too busy to write for the purpose of killing time The author says in his preface "I am assured that much of any interest which may be found will be in the clinical and pathological cases," and the intelligent reader will endorse the assurance The editors, however, on account of a superior knowledge and acumen, have decided that the cases may as well be left out! If such things can be the time cannot come too quickly when an International Copyright law will lay its hands on those who seem to be destitute of all moral sense and obligation

THE INTERNATIONAL MEDICAL CONGRESS

A meeting of the Executive Committee of the Ninth International Medical Congress was held at the Lindell House, in St Louis, on the 3d inst, at which a large majority or the Committee were present.

Reports of sub committees were presented and much progress was made towards completing the details of the preliminary organization Dr N S Davis, of Chicago, was elected unanimously President of the Congress to fill the vacancy occasioned by the death of Prof Austin Flint Dr J A Grant, of Ottawa, Canada, was elected Vice-President in the place made vacant by the resignation of Dr R. Palmer Howard, of Montreal J B Hamilton, M D, Supervising Surgeon-General of the U S Marine Hospital Service, was elected Secretary General of the Congress to fill the place made vacant by the election of Dr Davis to the Presidency

James F Harrison, M D, Chairman of the Faculty of the University of Virginia and Professor of Medicine, Obstetrics and Diseases of Women, was elected President of the Section of Gynecology, J H Callender, M D, Professor of Physiology in the Nashville and Vanderbilt Universities, Tennessee, President of the Section of Physiology, A B Palmer, M D, LL D, Professor of Pathology and Practical Medicine in the University of Michigan, President of the Section of Pathology, and E Williams, M D, of Cincinnati, President of the Section of Ophthalmology In compliance with the earnestly-expressed wish of both the otologists and laryngologists, the latter were given a separate Section, with Wm H Daly, M D, of Pittsburgh, Pa, President, and Wm Porter, M D, of St Louis, Mo, Secretary

H O Marcy, M D, of Boston, at his own request, was transferred from the Presidency of the Section of Collective Investigation, Nomenclature, Vital Statistics and Climatology, to the Vice Presidency of the Section of Gynecology, and the vacancy occasioned by this transfer was filled by the unanimous appointment of Albert L Gihon, M D, U S N, a man eminently qualified to fill the place

These important appointments, with much additional work in regard to details, will enable the Committee at an early day to issue a second circular giving the Preliminary Organization of the Congress complete, including the foreign officers required by the Rules previously adopted, and such additional information as can be furnished by the Local Committee of Arrangements at Washington

THE VIRGINIA BOARD OF EXAMINERS

The report of the Virginia State Board of Medical Examiners, which is published in the May number of the *Virginia Medical Monthly*, will be of considerable interest to State medical examiners generally, and to all others who hope for a higher standard of medical education in this country The State legislatures, one after another, are passing medical practice acts, and we may now hope that within a very few years there will be an efficient board in every State

About a year ago we took occasion to notice the efficient work done by the Virginia Board At a meeting of this board, on April 7, there were thirty-four applicants, of these, twenty-five passed the examinations, one withdrew and eight were rejected Up to this time, then, about one hundred graduates have applied for licenses, and sixty six have succeeded in passing the examinations

Of the examinations, which are written, we may say that while they are not unnecessarily severe they seem to be unnecessarily long, and tend to be too much tests of physical endurance For example, there were six questions in chemistry, each with subdivisions, eight questions in anatomy, each one with subdivisions, five in hygiene, each with subdivisions, eight in physiology, fifteen in materia medica and therapeutics, some with subdivisions, six in obstetrics, five in practice of medicine, each with tedious subdivisions, and twenty in surgery, the last of which is, "Describe the methods of resuscitating the drowned?" Now, the plan of the examination announces that "the applicant is required to answer at least three fourths of the questions satisfactorily, and to show a fair general knowledge of all the branches upon which he is examined" The applicant may make only 33⅓ on a given branch, but must aggregate 75 per cent of the entire questions We notice that "some of the best examination papers that were presented kept the gentlemen busily at work from 10 or 11 o'clock Wednesday morning, till late hours at night each day until Friday and even Saturday" It would seem that the examinations might be quite thorough with fewer questions and a limited number of hours We can scarcely go amiss in saying that there are very few men in active practice who could answer 75 per cent of the questions within two days of twelve hours each It seems rather questionable if an examining board should ask such a question as "Give the anatomy and function of the lymphatic system," when physiologists and anatomists are not at all agreed as to the answer It is probable, too, that the student and examiner might differ as to the source from which the heart receives its nervous supply, and as to the phenomena of pancreatic digestion So, also, in describing the management of shoulder presentations, some obstetricians are positively at variance regarding the management of these cases However, the fault that we find is in regard to the number of questions It is better to be too severe than so lenient as to admit an unqualified man

SOCIETY PROCEEDINGS

AMERICAN SURGICAL ASSOCIATION

Seventh Annual Session, held in the Reading room of the Army Medical Museum, at Washington, April 28, 29 30 and May 1, 1886

(Concluded from page 528)

FRIDAY—APRIL 30—THIRD DAY

MORNING SESSION

THE PRESIDENT IN THE CHAIR

DR T F PREWITT, of St Louis, read a paper on

TRAUMATIC ANEURISM OF THE INTERNAL CAROTID ARTERY

He first referred to those cases of spontaneous aneurism of the internal carotid artery which are found in literature and, the frequency with which this lesion had been confounded with cynanche tonsilaris He had been unable to find more than one reported case of traumatic aneurism of this artery This was reported by Dr Wm T Briggs, of Nashville The aneurism in that case followed a stab wound and was operated on successfully

Dr Prewitt then described the following case E J, colored, 17 years of age, was shot by her husband, early in January, 1885 The weapon used was a revolver carrying a No 32 ball The shot was fired at a distance of two feet and entered the cheek over the malar bone, ranging backwards There was some profuse hæmorrhage at the wound of entrance There was no wound of exit The bleeding was controlled by compression There was hæmorrhage from the ear at the time, and this recurred on two or three occasions For some time after the accident the patient stated that there was some hæmorrhage from the mouth and nose on rising in the morning There was some swelling at the time which gradually increased until April the 2d, when she was seen by the speaker It then projected into the pharyngeal cavity and rested against the uvula, and extended externally from the anterior petrous portion of the temporal bone to the hyoid bone The swelling pulsated in every direction and gave thrill and bruit Immediately after the accident there was paralysis of taste and of the right side of the tongue, this continued Pressure upon the carotid artery arrested the pulsation in the tumor There was no difference in the pulsation of the two temporal arteries, the pupils were equal and respond normally to light There was persistent headache with sounds in the ears, which was increased by lying upon that side The voice was greatly interfered with, owing to paralysis of the right vocal cord The appetite was poor and the patient emaciated She was unable to swallow solids and fluids regurgitated when the attempt to swallow was made

With this history and with these symptoms it was decided that there was aneurism of the internal carotid artery, and that the vessel had been wounded near the carotid foramen, for nowhere else are the artery and nerve in such intimate connection

It was determined to at once ligate the common carotid artery The usual incision was made and the dissection continued until the artery was exposed A silk ligature was passed from behind forwards The vessel was then lifted to be sure that the pulsation was arrested before the ligature was applied Finding that it was, the vessel was then tied The pulsation was at first arrested, but in a few minutes it could be again felt In the absence of all precedent it was concluded to extend the incision upwards in front of the tragus and determine the feasibility of opening the sac and tying the distal end This was a forlorn hope, for the diagnosis was that the aneurism was seated just external to the carotid foramen An incision was then made below the ear and extended upwards back of the ear A cautious dissection revealed the fact that the sac filled all the space between the mastoid process behind and the condyles and ramus of the jaw in front It extended to the base of the skull, to which it was closely adherent

It was therefore impossible to reach the artery in that direction Further attempts were abandoned, the wound was closed, a drainage tube inserted and an antiseptic dressing applied During the following seven days the temperature varied between 101° and 103° On the eighth day, there was some hæmorrhage from an opening near the angle of the jaw This was repeated and she spat up some blood on the following day Examination showed a little coagulum at the angle of the jaw, which was removed and the left forefinger thrust into the opening No coagulum could be felt within the sac The attempt to detect the entrance of the artery with the finger failed In order to avoid the hæmorrhage which would follow the removal of the finger the sac was stopped with lint treated with iodoform This controlled the bleeding The patient gradually became weaker and died on the twenty-fifth day after operation from exhaustion Ten days after the sac was stuffed, epileptiform convulsions involving the facial muscles and the flexors of the forearm and hand appeared These continued at intervals until her death

The *post mortem* examination showed the ball in the posterior part of the sac The opening of the carotid artery was found close to the carotid foramen and seemed blocked up with clot The blood-vessels of the membranes of the brain were congested, particularly on the right side The inferior petrosal and lateral sinuses were filled with thrombi up to the torcular Herophili

The differential diagnosis of aneurism of the internal carotid artery from those of other arteries in this situation were then considered As regards operation in this case compression and ligation were considered, but compression was rejected on account of the urgency of the symptoms The patient was not a suitable one for this mode of treatment, being ignorant and irritable, and unfitted to endure the annoyances of this method of treatment Neither were skilled attendants available

Dr J Ford Thompson, of Washington, had never seen a case of aneurism of the internal carotid artery, but should think that the diagnosis would not be especially difficult It would perhaps have been better if the operation of Syme had been performed, or, if necessary, the suggestion of Guthrie might have been carried out, that is to make a section of the ramus of the jaw, to afford more room for dissection As this lesion is followed by certain death, his opinion is that it is the duty of the surgeon to perform the old operation, cutting into the sac and ligating the vessel at both ends

Dr William T Briggs, of Nashville, said that the case which he reported at a previous meeting of the Association was that of a young man stabbed in the neck Five weeks later the patient presented himself at the clinic with a swelling of the neck presenting all the evidences of aneurism He considered it to be a small aneurism of one of the branches of the external carotid artery that could be readily reached and ligated He made an opening large enough to permit the introduction of the finger, and at once found that the condition was more serious The hæmorrhage was controlled by stuffing a sponge into the sac and the common carotid ligated When the sponge was removed, the hæmorrhage was as free as before The opening in the sac was then enlarged, the opening of the artery having been found and controlled by the finger The vessel was then hooked up and a ligature applied above and below the sac The patient recovered and is still living in perfect health He thinks that in all cases where it is possible, the operation of Syme should be employed

Dr D Hayes Agnew, of Philadelphia, said that about three years ago, a woman presented herself at the University Hospital with a tumor as large as an orange just beneath and behind the angle of the jaw There was also a projection into the pharynx This tumor had grown slowly for eight months, and was attributed to a blow on the side of the head He considered it a case of aneurism of the internal carotid, and ligated the common carotid above the omohyoid muscle The pulsation was diminished, but it could still be felt He attributed this to the communication with the external carotid artery He then tied the superior thyroid and the lingual This stopped all pulsation The patient did well for two weeks, when pulsation again returned Pressure on the carotid of the other side controlled the pulsation, and he then placed a ligature around the primitive carotid of that side During his absence from the city, ulceration took place and a gush of blood into the pharynx occurred The resident stuffed the cavity, but the patient died eight days later, apparently from septic poison If he had been present when rupture occurred, he had determined to have laid the sac open and have tied above and below From the history of these cases he believes that in this condition the operation should be a formal one of section of the jaw, and then proceed to ligate above and below the sac

Dr A Vanderveer, of Albany, said that in December, 1882, a man 42 years of age, a farmer, was sent to him with a swelling of the neck which was diagnosed to be an aneurism of the internal carotid artery It was attributed by him to forced motion of the head to one side which was required in a certain part of his work It was determined to first try compression This was faithfully carried out, and at the end of six days the swelling was much diminished and the tumor in the pharynx seemed more solid He then went to his home, but returned one month later, the previous condition having returned Compression was again tried, and at the end of five days there was a marked diminution in the size of the tumor He again returned home and continued in apparently good health for four or five weeks, when he suddenly complained of a severe pain in his head and fell dead An autopsy was made, but no satisfactory explanation of his death could be found The physician was inclined to attribute it to apoplexy

Dr L McLane Tiffany, of Baltimore, said that in the case reported by Dr Prewitt there was no room for a distal ligature In this case, however, it might have been possible to apply a compress, pressing the artery against the base of the skull

Dr T F Prewitt agreed with those who had taken part in the discussion that the old operation is the proper one for traumatic aneurism where it is possible to apply it In this case this could not be done If the circumstances had been suitable, he should have tried compression, but the symptoms were too urgent to permit of this

Dr Roswell Park, of Buffalo, exhibited a

TRACHEOTOMY TUBE

This was a bivalve instrument, the blades opening laterally and provided with an obturator permitting its ready introduction The great advantage claimed for the instrument was the ease with which it could be cleansed

Dr Park then reported a case of

LIPOMA TESTIS, OR A LARGE ACCUMULATION OF FAT IN THE TUNICA VAGINALIS

Lipomata of the spermatic cord are rare enough to always attract attention, but lipomata of the testicle are of such exceeding rarity that, believing that he had had a case which deserved this designation, he desired to put it on record

J. P, age 40, was first seen in September, 1885 For eighteen months the patient had noticed a slow but continuous enlargement of the right testicle This was almost painless, but caused inconvenience by its weight At this time the tumor had reached the size of a cocoanut

Examination showed the scrotum to be filled with a large mass, the testicle being crowded into a small space at its upper part This mass was solid, yet soft and not tender Obscure fluctuation was noticed, but no fluid was obtained upon explorative puncture The patient's general appearance excluded all idea of malignancy The scrotal integument moved with perfect freedom over the tumor

On October 4 the patient was operated on A free incision through the tunica vaginalis revealed a mass of densely packed fat which was slightly adherent, but was turned out without difficulty On separating the lobular masses by the fingers, the right testicle was found not merely imbedded in its upper part, but incorporated by apparently intimate tissue connection It was supplied with blood both from the testis and from the cord The cord seemed to pass for a distance of two inches through the mass before reaching the testicle No evidence of pus or present hernia could be found, the ring and canal being no larger than on the opposite side Finding the fibrous trabecula and blood vessels radiating from the testicle to the fatty mass so numerous and distinct, it was decided to remove the whole *en masse*, which was done The patient recovered without incident After removal the mass weighed three pounds It was not possible to decide the exact origin of the fatty growth, whether it had started from the cord or from the testicle

The literature of this subject is very meagre, the author being able to find but three similar cases on record Kimball (*Boston Med and Surg Journal*) and Jobert (*Gaz Med de Paris*, 1850) report authentic cases Deguise also reports a case (*Ann de la Soc de Chir* ix) in which the tumor was as large as an adult head, and had been growing for twelve years Numerous authors state that lipoma of the cord may extend downwards and may spread over testicle, and it is possible that this case may have begun in that way, but there was nothing to indicate such an origin The rarity of the lesion coupled with its pathological interest and the obscurity which attends the diagnosis, was the author's reason for presenting the case to the Association

Dr Park also read a paper entitled

NEPHRECTOMY ON A PATIENT TWENTY-THREE MONTHS OLD

B B, born October 4, 1883, appeared at birth to be perfectly healthy During the following winter the nurse noticed an enlargement in the right side of the abdomen, and the attention of the attending physician was called to it

July 31, 1885, the attention of the writer was called to the child, who appeared to be perfectly healthy There was a history of steady enlargement of the growth The bladder was examined with the sound, but no evidence of calculus was found The urine contained numerous crystals of triple phosphates, otherwise normal Examination of the abdomen revealed a firm resisting tumor about the size and shape of the fœtal head at term, occupying the right half of the abdominal cavity A portion of the fluid was removed and examined, with negative results The diagnosis was fibro cystic tumor of the right kidney, probably of congenital origin Five weeks later the tumor was found to have increased decidedly in size, and operation was decided upon

The operation was performed September 15, 1885 An incision was made in the right semi lunaris, slight adhesions were found The peritoneum covering the growth was incised and the tumor shelled out without much difficulty The pedicle was tied and dropped into the abdominal cavity On the twelfth day the patient was removed to his home, and now, seven months after operation, is perfectly well The tumor proved to be a fibro cystic tumor of the right kidney, the cystic element predominating Immediately after removal it weighed four pounds

In searching the literature of this subject, the writer had been able to find but three cases in which the age of the patient approximated that of the one now reported These cases were respectively, one, 2¼ years, recovered, one, 2½ years, died, and one at 11 months, died The case reported therefore appears to be the youngest who has survived nephrectomy, he being 23 months old at the time of operation The abdominal incision in this case was made not from choice but from necessity, the tumor being altogether too large for extraction through a small opening in the lumbar region

Dr W W Keen, of Philadelphia, then read a paper on

STRETCHING OF THE FACIAL NERVE

He first related a recent case in which he had done the operation, and added a table of the twenty one cases so far reported

His own case was that of a woman, sent to him by Dr Sinkler, aged 48 years She was admitted to the Woman's Hospital April 1, 1886 She had had severe attacks of nervous trouble in early childhood, and had twice been paralyzed Five years ago coincident with menstrual disturbance her right eyelid began to twitch, and in six months the whole face and the platysma were incessantly in spasm, which was increased by mental or muscular effort, such as speaking or being spoken to Later this was accompanied with constant pain

In June, 1884, the right infra orbital had been resected with partial relief for only six weeks Not long after the twitching extended to the right side and leg

April 2 Dr Keen cut down on the seventh nerve by an incision behind the right ear, displacing the parotid gland forwards and getting access to the nerve just after its exit from the stylo mastoid foramen Imbedded in connective tissue, it required considerable search and dissection to lay bare the nerve in this case The exact point of its entrance into the parotid was quickly discovered by a very weak current of electricity, one electrode being placed on the cheek and the other consisting simply of the wire being touched at successive points from above downwards The trunk was then laid bare and stretched, the force being estimated at four or five pounds, just short of lifting the entire head Total facial palsy followed, with relief not only from the spasms in the face and neck, but also of that in the side and leg The wound healed in four days, when the sutures were removed, the highest temperature having been 100 4° The operation was done twenty five days ago, and so far there has been no return of the spasms and the patient was delighted with the the result, the palsy being a grateful relief from the spasm

Dr G B Massey had examined the case electrically and found the reactions of degeneration The later history of the case will be reported at a subsequent meeting

Next a table of the other twenty cases so far reported since Baum, in 1876, first stretched the facial nerve, was given, with remarks upon the operation The paralysis always disappears no matter how severe the nerve has been stretched, and while the spasms often return, they are lessened in severity In fourteen of the cases the spasms recurred within a week in three cases In five others, absolute relief extended over three weeks to five months, the improvement in four of them lasting much longer In the remaining six cases the relief extended from four months to a year, with improvement still existing in three of them As a palliative operation, therefore, it would seem to be indicated, while of the five cases reported "cured," two had continued three months, three had remained well for from two and a half to five years Two of the twenty one cases were too recently reported to give the final results

The speaker preferred Baum's method of operating decidedly to Heuter's, in which the nerve is reached through the parotid gland He bandages the lower jaw and gives fluid food for three or four days in order to keep the parts quiet while healing He called attention to two cases in which a palsy existing prior to the operation was benefited by the nerve stretching, both electrical and voluntary control being obtained to some extent, and he suggested that in persistent facial palsy, stretching of the facial nerve be tried as a therapeutic operation

Dr C H Mastin, of Mobile, read a paper on

SUBCUTANEOUS DIVISION OF URETHRAL STRICTURE

The history of the operation for external urethrotomy was first considered, and next was described the various methods which have been proposed for its performance The objections to these were then gone into at length The main objection to most of them is that they leave an open wound in the perineum to heal by granulation External urethrotomy is called for only under special circumstances It has been laid down as a rule that where water can escape through a stricture, the surgeon should always by patience, be able to get an instrument through the stricture The speaker thought that there were exceptions to this rule

The indications which render the operation necessary are

1 The impossibility of passing a sound into the bladder through the urethral canal, where a firm organic stricture blocks up the urethra and where dilatation or internal urethrotomy are not available

2 In cases where a tight stricture has ruptured, and an abscess has formed Under such circumstances it is necessary to open the abscess and it may be well to carry the incision further and lay the stricture open

3 Certain cases of old tight stricture complicated with urethral fistulæ, through which urine is passed in the act of urination In almost all these cases, however, as soon as the lumen of the tube is restored, the fistulas heal The writer prefers internal section in such cases

4 A most important indication which may arise is rupture of the urethra by a blow, the effects of which are violent and severe

5 Traumatic stricture, that is where the stricture is the result of direct injury to the urethra In these cases ordinary dilatation is inefficient and internal urethrotomy is often of little or no benefit

6 A calculus impacted behind a stricture may be an indication for external section

7 When extravasation of urine has occurred from sudden rupture of the urethra, and which is followed in a short time by extensive sloughing of the penis, scrotum and groin

8 The last indication is one in which Mr Reginald Harrison recommends combined external and internal urethrotomy with the introduction of a large tube

Having decided that external section is required, the question is, which operation gives the best prospects of success and is most readily performed The claims of the operations proposed were then considered

The author next described the operation which he had employed with entire *satisfaction since 1868* The incision is a very small one, made anterior to the stricture The patient, being properly prepared, is put in the ordinary position for cystotomy An anæsthetic is administered, a tube, open at both ends is then passed down to the stricture, this protects the walls of the urethra and puts on the stretch the face of the stricture The tube is filled with small whalebone probes, and one after another is tried with the hope that one will enter the stricture This being accomplished, the tube and probes are removed The probe engaged in the stricture is then pushed forward and a Wheelhaus sound carried down to the stricture, an incision one-half inch in length is then made in the anterior wall of the urethra on the groove of the sound, the sound is withdrawn a short distance and the whalebone bougie sought for as it passes through the stricture and drawn out of the original wound Over the probe a gorget is passed, having its blade upwards, this is passed downwards, cutting the stricture on its superior face, a catheter is then passed along the entire urethra into the bladder and the urine evacuated The stricture is then examined, to determine whether or not any points of narrowing still remain If they are, they are divided

If, in the first instance, it is found impossible to pass the whalebone bougie, a staff with a deep groove is passed to the stricture, and a small opening made, a whalebone bougie is then passed through the stricture, and the operation is complete, as in the previous case After operation, a full-sized ordinary soft catheter is introduced to the prostratic portion of the urethra, but not into the bladder, the patient is put to bed, on the left side, and directed to push the catheter into the bladder when the desire to urinate is felt, and to withdraw it beyond the neck of the bladder, but not through the stricture after the urine has been passed This is used only for the first twenty-four or thirty six hours, to protect the wound from the contact of the urine The speaker was opposed, on general principles, to allow a catheter to remain in the bladder, at the end of the time mentioned, the catheter is dispensed with Immediately after the stricture has been incised and the calibre of the urethra restored the external wound is closed with three fine pins passing sufficiently deep to grasp the walls of the urethra, these are removed in from four to six days In the course of eight or ten days the patient is able to return to his work The maximum calibre of the urethra is restored by the use of graduated sounds

The advantages of this operation are the short time of confinement for the patient, the freedom from hemorrhage the quick union by primary adhesion, and the small amount of cicatricial tissue left

Dr Dunott's experience in dealing with so called impermeable or impassable stricture has not been small, he had been able to deal with them even when there was great induration, almost without exception by the ordinary internal urethrotomy operation In fifty or sixty cases seen within the last twelve years, he had been compelled in but one or two instances to perform external section He thought the main reason that external urethrotomy is so frequently necessary is absence of patience on the part of the surgeon It seemed to him almost without exception that where one drop of urine will pass through the urethra, a guide can be gotten in, provided the surgeon has the patience to wait for it

Dr J Ewing Mears offered an amendment to the By-Laws, providing for the appointment of a committee, of which the President shall be chairman, to have charge of the preparation of the scientific work of each session Laid over until the next meeting

The President announced the following committee on the proposition looking to the formation of

A CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS

Drs C H Mastin, Charles T Parkes, J Ford Thompson, J Ewing Mears, and N Senn

The following were elected

OFFICERS FOR THE ENSUING YEAR

President — Hunter McGuire, M D, Richmond, Virginia

Vice-Presidents — T F Prewitt, M D, St Louis, and J W Gouley, New York

Secretary — J R Weist, M D, Richmond, Ind

Recorder — J Ewing Mears, M D, Philadelphia

Treasurer — P S Conner, M D, Cincinnati

Council — Drs Hunter McGuire, John S Billings, L McLane Tiffany, R A Kinloch, and Moses Gunn

The following were elected

HONORARY MEMBERS

Foreign — Sir William MacCormac, *American* — Prof Henry J Bigelow

Active Members Elected — Drs H H Mudd, St Louis, and Joseph Ransohoff, Cincinnati

Time and Place of Next Meeting — The second Wednesday in May, 1887, at Washington

---

CHICAGO MEDICAL SOCIETY

Stated Meeting, May 3, 1886

The President, E J Doering, M D,
in the Chair

Dr M P Kossakowski exhibited a case of

DOUBLE HARE-LIP AND CLEFT PALATE IN AN INFANT

He promised a subsequent report of the case

Dr H Gradle read a paper on

PURE DRINKING WATER

(See page 544)

Dr Long asked if it is demonstrated whether the bacteria in our dringing water comes from the sewerage or from the air

Dr L Curtis said there is no doubt that water absorbs a great number of bacteria from the air, and that these may gain entrance into the circulation through the digestive tract as well as through the respiratory tract He said there is no doubt of the possibility of malarial germs being introduced into the system by means of drinking water

Dr R Tilley wished to know if it has been actually demonstrated that the bacillus tuberculosis finds its way through our sewers into the lake and drinking water We are not justified in saying that our water contains this element of danger until it has been demonstrated

Dr J Zeisler asked if Dr Gradle had examined the Waukesha waters and found bacteria in them

Dr Gradle closed the discussion by saying he took pains not to state in his paper whether he thought the disease germs found in the water were introduced by means of the sewerage or air It is not a vital point so far as the use of the water is concerned, although if it is decided that these bacteria are introduced by means of the sewerage and not the atmosphere, it would have a bearing on the question of where to dispose of our sewerage However, there is no doubt but bacteria are introduced into large bodies of water by means of dust, vegetation, and decayed leaves, and there is no reason to believe that the bacteria found in our water is derived from the sewerage alone A Russian chemist had examined the water found at St Petersburg, and found that at a distance from the city the number of bacteria per cubic centimetre was considerably less than near the city Dr Gradle has examined water obtained from Lake Michigan about thirty five miles from Chicago and had found about the same number of bacteria per cubic centimetre, but a less number of varieties than in city water He believed the spores of typhoid and tuberculosis may find entrance into our lake water and become causes of disease in individuals who are not prepared to resist their attack Dr Gradle had never examined the Waukesha waters, but he had examined water from a spring on his own farm, which he believed to be as pure as Waukesha water, and had found only fifteen to twenty bacteria per drop, and only three varieties He believed that spring waters are the purest, as the bacteria they contain cannot be due to sewerage

Dr W H Lyford read a report of a case of

SCLERODERMA

A girl, æt 10 years, apparently healthy and of good family history Five years ago she received a shock from a lightning stroke Shortly afterwards her parents noticed, under the surface of the skin over the outer region of the left forearm, a delicately traced symmetrical figure, branching and ramifying in purplish colored lines with singular regularity Dr Lyford believed the lightning had paralyzed the cutaneous branches of the musculo spiral nerve, and caused congestion of these filaments, with the marking as a result In due course of time the skin has undergone the changes that take place in scleroderma There is hyperæsthesia accompanied by pain, especially at night The patch is also now slightly elevated above the surrounding healthy integument, and is only slightly movable, while at the elbow it is attached to the fascia and sheaths on the tendons, thus interfering somewhat with the movements of the forearm

Dr J Zeisler said he had seen four cases of scleroderma, two of general scleroderma and two of partial scleroderma The first two cases he saw in a clinic of Kaposi Their appearance was striking In scleroderma the features of the face are immobile, and therefore the patient cannot express the emotions The skin and underlying tissues seem to grow together The cases of partial scleroderma he had seen in this city In one patient the patch of scleroderma was a ribbon like band behind one ear, pinkish in color, immovable upon the underlying tissues The other case was a lady æt 50 years, who noticed her right mammary gland was becoming hard, large, and the nipple contracted There was no pain in the breast nor were the axillary glands involved The skin was hard and adherent to underlying tissue A similar condition was observed in a patch of skin on the right arm Kaposi states the majority of cases of scleroderma occur in females The best treatment for scleroderma is massage and galvanic electricity

---

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

Cuneiform Osteotomy for Congenital Talipes Equinus—Compound Comminuted Fracture of the Femur—Cholecystotomy for Abscess of Gall-bladder and Closure of Cystic Duct

At the last meeting of the New York Surgical Society the proceedings were of unusual interest and variety of scope Dr Charles T Poore presented a patient, the subject of congenital talipes equinus, on whom he had performed cuneiform osteotomy with the most successful results The operation, which consisted of the removal of a V-shaped piece from the outer aspect of the foot, as advocated by Davy and others, was not performed until after the failure of all attempts to change the position of the anterior portion of the foot, including the use on several occasions of Bradford's instrument for forcibly rectifying this deformity The patient was observed to walk with but a slight limp, and Dr Poore stated that he was regaining motion in the ankle joint, while there was no pain whatever about the foot

Dr George A Peters then presented a patient, a lad of 16, whom he had treated at St Luke's Hospital for compound comminuted fracture of the femur The injury was caused by being kicked and trampled upon by a horse, and about four and a half hours after it was received Dr Peters operated as follows The surface of the limb was thoroughly cleansed and rendered aseptic An incision two and a half inches long was made on the external opening down to the bone A large piece of the anterior surface of the shaft of the femur was then found to be chipped off, though attached at its lower end by the periosteum This was removed, and found to measure six inches in length, by one inch in width Another small loose piece was also found and removed The two beveled surfaces of the femur were then united by two silver wires, after which the wires were twisted, and the ends left projecting from the external wound A rubber drainage-tube was inserted, and the incision closed with a continuous catgut suture The wound was well dusted with iodoform, and a dressing consisting of iodoform gauze, bichloride gauze, and a Lister bandage, applied The foot was slightly everted, and a long Liston splint, reaching from the toes to the thorax, bandaged on. Finally, Buck's extension, with a weight of five pounds, was ordered, and the patient placed in Ludlow's modification of Crosby's fracture bed. More than seven months afterwards a piece of the lower fragment of bone, measuring two and a half inches by seven-eighths of an inch, was removed from the sinus left, and it was found to contain two of the drill-holes made by Dr. Peters. The patient was discharged, after remaining in the hospital for eight months, with good union and only about one inch of shortening. The good result in this case, Dr. Peters thought, was largely due to the fracture bed referred to, which is much used in St. Luke's.

The paper of the evening was by Dr. Joseph C. Hutchinson, of Brooklyn, and was entitled *A Case of Closure of the Orifice of the Cystic Duct by a Gall Stone, Abscess of the Gall bladder, Cholecystotomy, Recovery.* This was a very obscure case, and the diagnosis was not positively determined until laparotomy was resorted to. The history of the patient, whom Dr. Hutchinson saw in consultation with Dr. Bristow, of Brooklyn, was as follows:

Mrs. S., a widow, about 40 years of age, about twelve years before coming under his observation, began to have paroxysms of severe pain in the "pit of her stomach, running through to the back," coming on suddenly, and lasting usually about twenty minutes, but occasionally for an hour. There was sometimes an interval of a year or more between the paroxysms; then, again, they would come every day, and even several times a day. As a rule, she said, the paroxysms were more frequent when she was in ill health or became wearied by any unusual exertion. They were not attended by nausea and vomiting or febrile disturbance, and were not followed by jaundice. In July, 1884, when she first came under Dr. Bristow's care, a tumor about the size of a man's fist was discovered in the right side of the abdomen, below the level of the umbilicus. Pressure upon it produced a sense of oppression and shortness of breath, but no pain was developed. There was, most of the time, a dull aching sensation in the region of the tumor, and to get relief the patient would involuntarily apply the hand and move the tumor to one side or the other, which she could do for about two inches. At that time she had been free from the paroxysmal attacks of pain for about two years. She was anæmic, and complained of exhaustion; but was able to attend to her household duties. The bowels moved regularly, and the fæces were normal in color and consistency. There was no suspicion of hepatic disease. She had never had jaundice; chemical and microscopic examination of the urine showed that it was normal in all respects; and she did not have rigors or fever.

Dr. Hutchinson first examined the tumor in January, 1885. It then extended from a line on or level with the umbilicus, and an inch to the left of it, across to the right lumbar region, and downwards to within two inches of Poupart's ligament. It was irregularly rounded, fluctuated distinctly, was movable from side to side, and was painless. There was no dulness between the tumor and the liver. The uterus was normal in size.

The diagnosis was, cystic tumor of the ovary, and she was operated on, after an appropriate course of preparation, on May 18, 1885. After the patient had been placed under ether, Dr. Hutchinson made another careful examination of the tumor, and a question then arose as to the correctness of the diagnosis made. Under the circumstances, therefore, he made an exploratory incision through the *linea alba*, beginning one inch below the umbilicus, and extending it downward two and a half inches. When the abdominal cavity was opened the cyst, white in color, was brought into view, and a steel sound, first dipped in hot water, was passed in, and swept around the tumor, with the result of proving that there were no adhesions. With a large trocar one pint of laudable pus was then withdrawn from the sac, and microscopic examination subsequently showed that there were no cholesterine crystals, or other elements to indicate that the fluid came from the gall bladder.

The cyst was seized with forceps and drawn up into the wound, in order to prevent its contents from escaping into the abdominal cavity. In manipulating the sac Dr. Hutchinson discovered that it contained a rounded solid body which, on being removed by the finger, after the opening made by the trocar had been enlarged, proved to be a gall stone. On further exploration, another was found, pointed on one side, the point fitting into the orifice of the cystic duct, completely occluding it. This condition, he said, explained the absence of jaundice, of clay colored stools, and of bile pigment in the urine. An effort was made to explore the cystic duct with a probe; but its orifice could not be discovered. Two fingers were then carried along the collapsed gall bladder to the under surface of the liver, to ascertain, if possible, whether the ducts were free from calculi or other obstructions; but none could be found. The sac was well irrigated with warm water, and the edges of the opening into it were stitched with five interrupted silk sutures to the upper end of the wound in the abdominal walls, leaving the opening into the gall bladder quite free. The edges of the peritoneum were closed by a continuous catgut suture, and the remainder of the abdominal tissues by interrupted silk sutures, carbolized, carried down to the perineum, but not through it. The walls of the gall-bladder were one-fourth of an inch thick. A glass drainage tube was introduced into the gall-bladder, and the wound was dressed with oiled lint, sprinkled with iodoform, and covered with marine lint and a bandage. The gall bladder was irrigated daily for four or five days, through the drainage-tube, with a one half per cent. solution of carbolic acid.

Bile began to flow from the drainage tube on the second day after the operation, and it continued to flow from the fistulous opening for six weeks, when the latter was entirely closed. After the operation the temperature once reached 101°, but it was promptly reduced to 99° by the application of the abdominal rubber coil. The patient was allowed to get up on the twenty first day. Microscopic examination of the calculi removed showed them to be largely composed of cholesterine.

In some concluding remarks, Dr. Hutchison said that an interesting feature of the case was the uncertainty of the diagnosis and the absence of symptoms calling attention to the gall bladder The symptoms had been confined to paroxysmal pains in the epigastric or hepatic regions for nearly three years, while the pain which the patient had in the early history of the case, referred to the pit of the stomach and extending to the back, although irregularly paroxysmal was unattended by nausea and vomiting, and was not followed by jaundice or clay colored stools, symptoms which were considered almost pathognomonic of the passage of biliary calculi Aspiration, instead of throwing any light on the case, would have made the nature of the tumor still more uncertain, because none of the elements of bile would have been found in the fluid thus removed, which, as was shown at the time of the operation, would have consisted of pure pus Acupuncture might have aided in the diagnosis, but in so large a collection of pus, it was not probable that the needle would have found the calculi

Although cholescystotomy was unpremeditated in this case, Dr Hutchison said that he would, in a similar operation, with the experience which this one had furnished, pursue the same plan The incision in the *linea alba* is attended by less hemorrhage than the usual incision along the margin of the ribs, and experience has shown that an enlarged gall bladder can be reached quite as readily by one incision as the other Suturing the opening in the gall-bladder to the abdominal walls, and establishing a biliary fistula should, he thought, be preferred to sewing it up and leaving it in the abdominal cavity,—*first*, because there would be less danger of the escape of bile into the perineal cavity, and, *second*, if the cavity cannot be found at once, they may be searched for subsequently, or be spontaneously discharged through the fistulous opening, which usually heals in a few weeks, Dr Hutchison last saw the patient January 25, 1886, when she felt well, and was greatly improved in appearance This case afforded another illustration of the difficulty in always positively diagnosticating abdominal tumors, and of the importance of being prepared, before operating, for unexpected conditions

Dr T M Markoe, remarked that he now had a case which he was carefully watching with a view to operating It was quite different from Dr Hutchison's, however, in the fact that the distended gall-bladder could be made out very clearly He thought jaundice was rather the exception than the rule in these cases P B P

MISCELLANEOUS

The Florida Medical Association will meet in Palatka, Putman Co , on Tuesday, May 18

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA —The sixteenth annual session of the Medical Society of the State of California, was held in San Francisco on the 21st, 22nd, and 23rd of April The attendance was larger than that for many years One hundred and forty five new members were admitted There was a marked increase in the number of voluntary papers

The following officers were elected for the ensuing year President, W S Thorne, First Vice-President, R H Plummer, Second Vice-President, W F McNutt, Third Vice-President, A G Anthony, Fifth Vice President, W R Cluness, Treasurer, G C Simmons, Secretary, W A Briggs, Assistant Secretaries, J H Parkinson and L M F Wanzer, Board of Censors—William Watt Kerr, T B DeWitt, H S Orme, A G Anthony, G G Tyrrell, Board of Examiners—James Simpson, R H Plummer, C G Kenyon, C H Steele, C E Blake, W F McNutt and William M Lawlor

The next session will be held in San Francisco, commencing on the third Wednesday in April, 1887

ILLINOIS STATE MEDICAL SOCIETY —The annual meeting of the Illinois State Medical Society will be held in Washington Hall, Bloomington, on May 18, 19 and 20, beginning at 11 A M , on Tuesday, May 18

The Railway fare for delegates and members from Chicago is $5 00 for the round-trip Delegates from other States will pay full fare coming and one cent a mile returning

Arrangements have been made for commutation fare at the Ashley House, Phœnix Hotel and Hotel Roberts, each within one or two squares of Washington Hall

Trains leave Chicago as follows Illinois Central 2 50 P M , arriving in Bloomington 9 P M Chicago and Alton, 8 45 A M , 12 30 P M , and 11 20 P M , (with sleeper) arriving at Bloomington at 1 40 and 5 40 P M , and 6 30 A M

HYDROPHOBIA IN RUSSIA —In the *Russkaia Meditzina*, No 8, 1886, p 141, Dr A Burtzeff, of Totma, Valogda Government, writes that, on November 22, 1885, seven adult men were bitten by a rabid wolf, which rapidly visited different parts of the town, and then escaped All the patients were immediately attended to at the local hospital, their wounds being washed out with a strong solution of carbolic acid, energetically cauterized with caustic potash in substance, in addition, ligatures, lotion of caustic potash, and chloral hydrate in scruple-doses internally were used In three of the patients, hydrophobia appeared on the thirty-fourth, thirty-sixth, and thirty-eighth days, the cases ending fatally in thirty-seven and a half, seventy-one, and sixty five hours Subcutaneous injection of curare did not give the slightest relief to any of the patients According to Dr Burtzeff, the symptoms and course of the disease closely tallied with those described by Dr Bristow, that is, there were present intense pain in the wounds, general hyperæsthesia, violent dyspnœa of the muscles of deglutition and respiration, thirst, with inability of swallowing either solids or fluids, affective insanity etc In two of the patients, a tendency to bite everybody, and to gnaw everything within their reach, was observed The remaining four patients bitten are still in good health In conclusion, the author lodges a complaint against the freedom with which wolves, rabid and healthy alike, are allowed to run and ramble about the town, no measures to prevent this being taken by the authorities Probably, the latter will be aroused when a sagacious wolf bites or devours one of their number Till then, the wolves will remain unmolested, and privileged in their possession of freedom —*British Medical Journal*, April 24, 1886

Dr Edward F Wells, formerly of Minster, Ohio, has accepted the Chair of Materia Medica, Pharmacology and Clinical Medicine in the College of Physicians and Surgeons of this City, and has removed from Minster to 148 Dearborn Ave , Chicago

The Pasteur Commission —The Commission of Inquiry into the system carried out by M Pasteur to prevent the development of hydrophobia, which has been appointed by the British Government, has now commenced its investigation The Commission consists of Sir H Roscoe, M P , who moved for the appointment of the Commission in the House of Commons, Sir James Paget, F R S , Dr Burden Sanderson, F R S , Dr Quain, F R S , Principal Veterinary Surgeon G Fleming, of the Army Veterinary Department, Dr Lauder Brunton, and Mr Victor Horsley, F R C S , of the Brown Institute, the latter acting as Secretary to the Commission Sir H Roscoe, Drs Brunton and Sanderson, and Mr Horsley are now in Paris, and before long the public may look forward to the issue of a report which will enable them to appreciate the value which properly attaches to the processes adopted by M Pasteur The composition of the Commission renders it quite unnecessary to indicate the nature of the evidence which should be sought for, but we may say that, so far, no reports which have come under our notice have given sufficient evidence that their compilers have eliminated the many sources of error which have to be dealt with before any trustworthy opinion can be expressed as to the methods carried out in Paris —*Lancet*, May 1, 1886

The Progress of Beer-Drinking in America —Beer, it would seem, is rapidly replacing the fantastic "drinks" for which the United States have earned a reputation, and is in a fair way to become the national beverage The quantity of beer now consumed is, in proportion to the population, eleven times as great as it was forty years ago Some, perhaps not altogether disinterested, persons appear anxious to get up a scare about beer, and are endeavoring to prove that it is a beverage peculiarly dangerous to health, causing degeneration of the heart, the liver, and the kidneys The evidence, however, in support of this charge is not overwhelming, it is said, for instance, that the hearts of the men of Munich are larger than those of other people, and more ready to undergo fatty degeneration, and that the number of people who die of Bright's disease, in New York, has increased since beer became a popular beverage Evil tales are told of its adulteration, but they have not found much confirmation in the analyses made for the State Board of Health, and there is reason to fear that even whisky is sometimes tampered with On the whole, this change in the drinking habits is a matter for congratulation, even if it be true that he who drinks beer thinks beer Still, our somewhat mercurial cousins may be none the worse for the infusion of a little Teutonic solidity There is, however, one kind of ale which is best of all—that of Adam —*Brit Med Jour*, May 1, 1886

American Medical Association —The Thirty-eighth Annual Meeting of the American Medical Association will be held in Chicago commencing on the first Tuesday in June, 1887, under the Presidency of Dr E H Gregory, of St Louis Much of the success of the St Louis meeting is due to the efficient work of Dr LeGrand Attwood, Chairman of the Committee of Arrangements The Chairman of this Committee for 1887 is Dr Chas Gilman Smith, and it may be predicted that he will prove a most fitting successor to Dr Attwood

The social features of the St Louis meeting were of the most brilliant description With a musical entertainment at the Exposition Building on Tuesday evening, a grand reception at the Merchants' Exchange on Wednesday, six receptions at private houses on Thursday evening, and an excursion on the "Chouteau," one of the largest steamers on the Mississippi, on Friday afternoon, the members and delegates actually labored under embarrassment of social riches The St Louis meeting will long be remembered as one of the most pleasant in the history of the Association

Spanish Rags —The prohibition of the importation into England of rags from Spain has been extended for a period of four months from May 1

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM MAY 1, 1886 TO MAY 7 1886

Major Francis L Town, Surgeon granted leave of absence for eight months, with permission to go beyond sea, to take effect when his services can be spared by his department commander (S O 101, A G O , April 30, 1886)

Capt Wm J Wilson, Asst Surgeon, died May 2, 1886, at Plattsburg Bks , N Y

First Lieut Geo F Wilson, Asst Surgeon, ordered for duty at Ft Shaw, M T (S O 37, Dept Dakota, April 26, 1886

First Lieut A S Polhemus, Asst Surgeon, relieved from duty at Presidio of San Francisco, Cal , and ordered for duty as Post Surgeon, Ft Halleck, Nev (S O 28, Dept Cal , April 26, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING MAY 8 1886

Kite, Isaac, Assistant Surgeon, ordered to Naval Hospital, Brooklyn

Simon, W J , P A Surgeon, ordered for temporary duty to the Naval Academy, Annapolis

Lippincott Geo C , P A Surgeon, ordered for temporary duty to the Naval Academy, Annapolis

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE WEEK ENDED MAY 1, 1886

Magruder, G M , Asst Surgeon, appointed an Asst Surgeon April 24, 1886 Assigned to temporary duty at Norfolk, Va , April 26, 1886

CORRIGENDUM

On page 551 this issue of The Journal first column second line for 'thrombolic ' read '*thrombotic*

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY
Vol VI CHICAGO, MAY 22, 1886 No 21

THE ADDRESS IN OBSTETRICS

HYSTERIA AND ITS RELATION TO DISEASES OF THE UTERINE APPENDAGES

Delivered at the Thirty-Seventh Annual Meeting of the American Medical Association on Tuesday, May 5, 1886,

BY S C GORDON, M D ,
OF PORTLAND ME
CHAIRMAN OF SECTION OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN

MR PRESIDENT AND FELLOWS OF THE AMERICAN MEDICAL ASSOCIATION —The year that has just passed has given no remarkable discoveries either in obstetrics or gynecology, and therefore in attempting to comply with the rule requiring the chairman of each Section to present a *resume* of new things in his department, I can only emphasize some of the matters that have been alluded to, perhaps in some former addresses, and weigh the experiences of individual members of the profession on some of the topics that have been more or less discussed Time, which alone can give experience, makes sad havoc with many of our pet theories, however plausible they may seem when first advanced We are constantly exploding some of the well accepted doctrines of the old teachers in every department of medicine, and in none more than in these two branches of the science A familiar example of this occurred at the last meeting of this Association I think no one theory held stronger place among us than that an accoucheur, after exposure to septic influences, should for a long time refrain from attendance upon new cases A neglect of this rule was generally deemed criminal, and the penalty was visited upon the victim in the most severe and summary manner

The carefully prepared and exhaustive paper of Dr George F French, who collected opinions from the ablest men in the profession, from this country and Europe, together with his own critical experiments, shows us that by proper measures and strict, absolute cleanliness, we can safely continue the daily routine of obstetrical work, with no months of delay, or anxiety as to the results of such continuance The criminality now lies in the neglect of the proper precautions within the reach of every practitioner Time alone may not be sufficient—in fact, may be no element of safety, if all the other elements are omitted If the seed sown by that one paper has been properly cultivated and has borne the same kind of fruit, the harvest within the year just past must be abundant

I will not attempt to review the literature of obstetrics for the past year, so far as relates to new discoveries, or new methods of treatment of the parturient woman, but simply allude to some of the practical points which have been more or less *sub judice* for many years Among the many of these questions, the early signs of pregnancy may be mentioned I have several times within the past year applied the test recommended by Hegar and alluded to in several journals, viz the increase in the anterior curvature of the uterus, with increased elasticity of the walls I think it a valuable sign and one that is apparent early For obstinate vomiting of pregnancy, I believe no one measure has been found of such value as forcible dilatation of the cervical canal below the internal os, and lifting the uterus out of the pelvis and supporting by cotton packs or some form of pessary The cases requiring the induction of abortion for this very distressing symptom will, I think, be very few if these measures are faithfully and carefully carried out The induction of premature labor for deformity of pelvis or disproportionate head, as found by former pregnancies, is, I believe, fast finding favor with accoucheurs From my own experience (very limited) I prefer the employment of the bougie, retained until labor begins, although some practitioners whose opinion I value, prefer the rapid manual dilatation Where we fear a disproportionate head, I think the eighth month the best time for it, when a tolerable degree of certainty exists as to the period of conception

The post parturient management of the woman I think deserves much more consideration than it has formerly received I am sure that until within a comparatively short period authorities have been disposed to teach a much more rigid system of dietetics for the woman who has just passed through her labor than the absolute necessities of the case require I believe the "poor sloppy diet" of the lying in room has been a fruitful source of the "lingering delay" and complications of childbed Many a woman whose period of gestation has compelled her to forego all the pleasures of the table finds the demands of nature such that the most nutritious food is desired In my opinion we will find much benefit from a liberal construction of the rule that nature does not make mistakes often

A word or two in regard to ameliorating the sufferings and shortening the process of labor It seems that an unnecessary amount of suffering, both in degree and duration, attends the "normal labor" (so called) among the large majority of American women —that they do not, as a rule, bear children so easily as the women of the British Isles I am very well convinced—not only from statistics, but from the general sentiment so prevalent among British practitioners, that a forceps delivery is rarely required While it is not pertinent on this occasion to elaborate this very much—statistics being accessible and more or less familiar to all of you—I cannot but believe that the use of anæsthetics and the forceps, in labor, has done much to relieve the suffering and prevent many of the injuries formerly incident to the parturient process I believe that vesico vaginal fistulæ are becoming less frequent under the more careful and judicious use of the obstetric forceps, by means of which a long and tedious labor has been shortened, and the pressure has been removed from portions of the vagina that would otherwise have lost vitality and sloughed

The treatment of the placenta, both at normal labor and at abortion, has been the cause of much discussion for the past few years The views of Pajot, recently published, are so nearly in accord with my own experience and practice, that I cannot forbear alluding to them He believes that, as a rule, the full term placenta is best delivered by prompt and gentle traction upon the cord, with the left hand, while the right index finger passed up along the cord intelligently regulates the amount of force necessary to be used The earlier after the delivery of the child this is done, the more easily is it completed and less evil results follow

I believe also, with him, that the forcible removal of the secundines in abortions, at almost any cost (now so prevalent), is by no means the safer practice Remove them if it can be done without much trouble, or instrumental interference, but otherwise a careful tamponing and close watching will do less harm, save more lives and prevent a vast amount of future suffering

In passing to the subject of gynecology I propose to occupy your time principally with one theme, that has engaged the attention of the profession and promoted much discussion during the past year, viz the removal of the uterine appendages—familiarly and variously characterized as Battey's, Tait's and Hegar's operation

I am sure any practical work done in this direction will be regarded as testimony before a jury of the profession, and a basis for making a proper decision upon the merits or demerits of the operation The mere dictum of any one man or set of men amounts to but little in our profession Nothing is conclusive or convincing short of absolute experiment When a man, however distinguished he may be, says that he has never seen any case where, in his opinion, the operation was required, such opinion amounts to but little in comparison with another who has believed it was required, and demonstrated by the operation a well-marked pathological condition, and cured his patient, who has suffered for years

The profession has differed very widely as regards the indications for this surgical interference, some claiming that only by a "demonstration by touch" which shall determine absolute organic changes in the ovaries and tubes, should a diagnosis of disease be made On the other hand, others become satisfied of the existence of structural changes by certain manifestations, which we term functional disturbances, and are commonly called by the terms reflex and hysterical That a large class of cases exist in every community, that have been invalids for years, and have defied all methods of treatment, is a well known fact It is largely to this class that I call your attention, and shall therefore devote the remaining portion of the time allotted to me to the discussion of

HYSTERIA AND ITS RELATION TO DISEASES OF THE UTERINE APPENDAGES

I suppose it is equally true of medicine as everything else, that there is really "nothing new under the sun"—therefore we may as well select, as one of the topics for consideration, a well-worn subject for an essay on any medical occasion Certainly nothing has been talked about or written upon more than hysteria Even the laity are as familiar with the symptoms, pathology and treatment, as the (I might almost say) majority of the profession No literature of the profession in any age is complete, that does not embrace more or less learned discussions upon this ever fruitful subject

No one man from his own experience is able to fully represent in language the various and ever changing symptoms of this bane of the profession I am well aware that in presenting this subject before you a smile of derision may almost unconsciously come, and a degree of surprise be manifest at the presumption of one who would attempt to evolve anything that might be new or interesting out of such a threadbare theme And yet, when we find one of the modern writers on nervous diseases making the confession that "hysteria contributes absolutely nothing to the science of morbid anatomy," we are fully justified in advancing any theory that has a semblance of reason, especially if we can present any evidence that in the remotest degee will appear to sustain that theory The absolute in our profession may be very limited, but the probable is almost indefinite The sum total of medical science and knowledge rests upon the basis of this limited absolute and indefinite probable, the former having for its foundation principally anatomy and physiology, while the latter has the accumulated experiences, and observations, and experiments of thousands of educated students, through thousands of years To the mass of the practical minds of these students the latter is as valuable as the former When we find, after a series of experiments, that a constant result is reached by a continued course, we must finally admit that there is a relation of cause and effect By countless multitudes of practitioners it has been found that opium is the antidote to pain, that quinia is antipyretic and that chloroform is anæsthetic These and many other now well accepted facts in the profession came to us, not by any inductive reasoning, but by the more common mode of experiment and close observation Applying the latter method, together with what has come to us through the well known principles of physiology, to the disease known as hysteria, I believe we can at least make some little progress towards "contributing *something* to the science of morbid anatomy"

At the risk of being prosaic I must briefly allude to some of the more prominent symptoms of this classified disease I am quite sure I shall not challenge very much discussion on this point, even if I incorporate into my description nearly every symptom of human suffering known to medical science Their name is legion, I will use those necessary for the several illustrations Sydenham thus describes the multiform manifestations of hysteria "A day would scarcely suffice to reckon up all the symptoms of hysterical diseases, so various are they and so contrary to one another, that Proteus had no more shapes, nor the chameleon so great a variety of colors, and I think Democritus was pretty right (though he mistook the cause of the disease) when he wrote in an epistle to Hippocrates, that the womb was the cause of six hundred miseries, and of innumerable calamities Nor are they only very various, but also irregular, that they cannot be contained under any uniform type, which is usual in other diseases, for they are, as it were, a disorderly heap of phenomena, so that it is very hard to write the history of the disease" His only explanation of the fact that women have the disease so much more frequently than men, is that "kindly nature has bestowed on the former a more delicate and fine habit of body, having designed them for an easy life, and to perform the tender offices of love" His "confusion of spirits," too many of them "collected in a crowd," and that the "ataxy of the spirits has vitiated the humors," seem hardly a sufficiently lucid explanation of the etiology of the disease, in these modern days of exacting pathology, and yet it was nearly if not quite as satisfactory as any of the many theories of our later pathologists "It is nothing but an attack of hysterics," "she is only nervous," let her alone and she will come out of it all right," "isn't this hysterical largely?" "surely there cannot be any organic lesion," etc

Perhaps no better modern history of hysteria has been written than that of Hammond in his "Diseases of the Nervous System" In the first paragraph under the head of symptoms he says "The phenomena of hysteria may be manifested as regards the mind, sensibility, motility and visceral action, separately or in any possible combination Thus it is not uncommon to meet with cases in which the only evidence of the disease is seen in abnormal mental action, others are characterized solely by derangements of sensibility, such as hyperæsthesia or anæsthesia, others by aberrations of the faculty of motion, such as paralysis, spasms and contractions Again, all these categories may be witnessed in the same person, giving rise, among other phenomena, to coma and convulsions, and again, some one or more of the viscera may be deranged in their functions, and thus the appearance of organic disease be simulated"

These mental symptoms are so very various that any attempt to recite them would be a history of the whole class of mental diseases, from the slightest emotional disturbances to the most violent exhibitions of joy or grief, entirely disproportionate to the cause, to be followed, perhaps, by the utmost indifference to all surrounding influences That the will to a great extent loses its power, at times, no one familiar with these cases can for a moment doubt, although under the influence of some strong exciting cause, the patient suddenly acquires the lost volitional power Illusions and hallucinations of all kinds and degree occur in many of these cases, and we find most striking illustrations of the most complete aberrations of the special senses "Images are seen where there is nothing, voices are heard where there is absolute silence, odors are smelt where there is nothing to smell, and strange tastes are perceived where the mouth is empty" The vagaries of the intellect are not less strange than of the special senses The perceptive faculties are often most wonderfully sharpened, while the reasoning powers and volubility are remarkably increased As often we find the most brilliant intellects dulled and the conversational powers almost entirely wanting The principal points of difference between this and insanity seem to be the less duration of the phenomena and less power to influence the patient's actions

In the deranged sensibility we find all degrees of hyperæsthesia and anæsthesia, the most common seat being the skin, in the region of the mammary glands, face, throat, extremities, and especially about the head in the form of headache Hammond quotes Briguet as saying that "out of 356 hysterical patients 300 were constantly subject to headache" Neuralgia in all its manifestations, in all parts of the body, may thus exist, without our being able to give it a definite origin Anæsthesia, with a corresponding loss of feeling in all these parts of the body, may exist, and even the special senses be affected to the point of producing blindness, deafness, loss of taste and smell I have seen some very remarkable cases of blindness due to reflex disturbances of the genital organs, which were at once relieved by appropriate treatment of these lesions

Hysterical paralysis, as manifested in hemiplegia, paraplegia, or, much more limited than either, aphonia-spasms, tonic and clonic, may affect almost every muscle in the body, continuing a long time, and simulating organic lesions in muscles, joints and mucous membranes

The functional actions of the viscera are by far the most surprising manifestations of hysteria, and frequently the most persistent and distressing Of all these perhaps there is no one more commonly affected than the stomach Hammond says this seems to be the "favorite organ," and this is in accord with my own experience The most obstinate vomiting, persistent flatulency and all the various distressing symptoms of indigestion, characterize a majority of the cases under my own observation eral construction of the rule that nature does not make mistakes often

A word or two in regard to ameliorating the sufferings and shortening the process of labor It seems that an unnecessary amount of suffering, both in degree and duration, attends the "normal labor" (so called) among the large majority of American women —that they do not, as a rule, bear children so easily as the women of the British Isles I am very well convinced—not only from statistics, but from the general sentiment so prevalent among British practitioners, that a forceps delivery is rarely required While it is not pertinent on this occasion to elaborate this very much—statistics being accessible and more or less familiar to all of you—I cannot but believe that the use of anæsthetics and the forceps, in labor, has done much to relieve the suffering and prevent many of the injuries formerly incident to the parturient process I believe that vesico-vaginal fistulæ are becoming less frequent under the more careful and judicious use of the obstetric forceps, by means of which a long and tedious labor has been shortened, and the pressure has been removed from portions of the vagina that would otherwise have lost vitality and sloughed

The treatment of the placenta, both at normal labor and at abortion, has been the cause of much discussion for the past few years The views of Pajot, recently published, are so nearly in accord with my own experience and practice, that I cannot forbear alluding to them He believes that, as a rule, the full term placenta is best delivered by prompt and gentle traction upon the cord, with the left hand, while the right index finger passed up along the cord intelligently regulates the amount of force necessary to be used The earlier after the delivery of the child this is done, the more easily is it completed and less evil results follow

I believe also, with him, that the forcible removal of the secundines in abortions, at almost any cost (now so prevalent), is by no means the safer practice Remove them if it can be done without much trouble, or instrumental interference, but otherwise a careful tamponing and close watching will do less harm, save more lives and prevent a vast amount of future suffering

In passing to the subject of gynecology I propose to occupy your time principally with one theme, that has engaged the attention of the profession and promoted much discussion during the past year, viz the removal of the uterine appendages—familiarly and variously characterized as Battey's, Tait's and Hegar's operation

I am sure any practical work done in this direction will be regarded as testimony before a jury of the profession, and a basis for making a proper decision upon the merits or demerits of the operation The mere dictum of any one man or set of men amounts to but little in our profession Nothing is conclusive or convincing short of absolute experiment When a man, however distinguished he may be, says that he has never seen any case where, in his opinion, the operation was required, such opinion amounts to but little in comparison with another who has believed it was required, and demonstrated by the operation a well marked pathological condition, and cured his patient, who has suffered for years

The profession has differed very widely as regards the indications for this surgical interference, some claiming that only by a "demonstration by touch" which shall determine absolute organic changes in the ovaries and tubes, should a diagnosis of disease be made On the other hand, others become satisfied of the existence of structural changes by certain manifestations, which we term functional disturbances, and are commonly called by the terms reflex and hysterical That a large class of cases exist in every community, that have been invalids for years, and have defied all methods of treatment, is a well known fact It is largely to this class that I call your attention, and shall therefore devote the remaining portion of the time allotted to me to the discussion of

HYSTERIA AND ITS RELATION TO DISEASES OF THE UTERINE APPENDAGES

I suppose it is equally true of medicine as everything else, that there is really "nothing new under the sun"—therefore we may as well select, as one of the topics for consideration, a well-worn subject for an essay on any medical occasion Certainly nothing has been talked about or written upon more than hysteria Even the laity are as familiar with the symptoms, pathology and treatment, as the (I might almost say) majority of the profession No literature of the profession in any age is complete, that does not embrace more or less learned discussions upon this ever fruitful subject

No one man from his own experience is able to fully represent in language the various and ever changing symptoms of this bane of the profession I am well aware that in presenting this subject before you a smile of derision may almost unconsciously come, and a degree of surprise be manifest at the presumption of one who would attempt to evolve anything that might be new or interesting out of such a threadbare theme And yet, when we find one of the modern writers on nervous diseases making the confession that "hysteria contributes absolutely nothing to the science of morbid anatomy," we are fully justified in advancing any theory that has a semblance of reason, especially if we can present any evidence that in the remotest degee will appear to sustain that theory The absolute in our profession may be very limited, but the probable is almost indefinite The sum total of medical science and knowledge rests upon the basis of this limited absolute and indefinite probable, the former having for its foundation principally anatomy and physiology, while the latter has the accumulated experiences, and observations, and experiments of thousands of educated students, through thousands of years To the mass of the practical minds of these students the latter is as valuable as the former When we find, after a series of experiments, that a constant result is reached by a continued course, we must finally admit that there is a relation of cause and effect By countless multitudes of practitioners it has been found that opium is the antidote to pain, that quinia is antipyretic and that chloroform is anæsthetic These and many other now well accepted facts in the profession came to us, not by any inductive reasoning, but by the more common mode of experiment and close observation Applying the latter method, together with what has come to us through the well known principles of physiology, to the disease known as hysteria, I believe we can at least make some little progress towards "contributing *something* to the science of morbid anatomy"

At the risk of being prosaic I must briefly allude to some of the more prominent symptoms of this classified disease I am quite sure I shall not challenge very much discussion on this point, even if I incorporate into my description nearly every symptom of human suffering known to medical science Their name is legion, I will use those necessary for the several illustrations Sydenham thus describes the multiform manifestations of hysteria "A day would scarcely suffice to reckon up all the symptoms of hysterical diseases, so various are they and so contrary to one another, that Proteus had no more shapes, nor the chameleon so great a variety of colors, and I think Democritus was pretty right (though he mistook the cause of the disease) when he wrote in an epistle to Hippocrates, that the womb was the cause of six hundred miseries, and of innumerable calamities Nor are they only very various, but also irregular, that they cannot be contained under any uniform type, which is usual in other diseases, for they are, as it were, a disorderly heap of phenomena, so that it is very hard to write the history of the disease" His only explanation of the fact that women have the disease so much more frequently than men, is that "kindly nature has bestowed on the former a more delicate and fine habit of body, having designed them for an easy life, and to perform the tender offices of love" His "confusion of spirits," too many of them "collected in a crowd," and that the "ataxy of the spirits has vitiated the humors," seem hardly a sufficiently lucid explanation of the etiology of the disease, in these modern days of exacting pathology, and yet it was nearly if not quite as satisfactory as any of the many theories of our later pathologists "It is nothing but an attack of hysterics," "she is only nervous," let her alone and she will come out of it all right," "isn't this hysterical largely?" "surely there cannot be any organic lesion," etc

Perhaps no better modern history of hysteria has been written than that of Hammond in his "Diseases of the Nervous System" In the first paragraph under the head of symptoms he says "The phenomena of hysteria may be manifested as regards the mind, sensibility, motility and visceral action, separately or in any possible combination Thus it is not uncommon to meet with cases in which the only evidence of the disease is seen in abnormal mental action, others are characterized solely by derangements of sensibility, such as hyperæsthesia or anæsthesia, others by aberrations of the faculty of motion, such as paralysis, spasms and contractions Again, all these categories may be witnessed in the same person, giving rise, among other phenomena, to coma and convulsions, and again, some one or more of the viscera may be deranged in their functions, and thus the appearance of organic disease be simulated"

These mental symptoms are so very various that any attempt to recite them would be a history of the whole class of mental diseases, from the slightest emotional disturbances to the most violent exhibitions of joy or grief, entirely disproportionate to the cause, to be followed, perhaps, by the utmost indifference to all surrounding influences That the will to a great extent loses its power, at times, no one familiar with these cases can for a moment doubt, although under the influence of some strong exciting cause, the patient suddenly acquires the lost volitional power Illusions and hallucinations of all kinds and degree occur in many of these cases, and we find most striking illustrations of the most complete aberrations of the special senses "Images are seen where there is nothing, voices are heard where there is absolute silence, odors are smelt where there is nothing to smell, and strange tastes are perceived where the mouth is empty" The vagaries of the intellect are not less strange than of the special senses The perceptive faculties are often most wonderfully sharpened, while the reasoning powers and volubility are remarkably increased As often we find the most brilliant intellects dulled and the conversational powers almost entirely wanting The principal points of difference between this and insanity seem to be the less duration of the phenomena and less power to influence the patient's actions

In the deranged sensibility we find all degrees of hyperæsthesia and anæsthesia, the most common seat being the skin, in the region of the mammary glands, face, throat, extremities, and especially about the head in the form of headache Hammond quotes Briguet as saying that "out of 356 hysterical patients 300 were constantly subject to headache" Neuralgia in all its manifestations, in all parts of the body, may thus exist, without our being able to give it a definite origin Anæsthesia, with a corresponding loss of feeling in all these parts of the body, may exist, and even the special senses be affected to the point of producing blindness, deafness, loss of taste and smell I have seen some very remarkable cases of blindness due to reflex disturbances of the genital organs, which were at once relieved by appropriate treatment of these lesions

Hysterical paralysis, as manifested in hemiplegia, paraplegia, or, much more limited than either, aphonia-spasms, tonic and clonic, may affect almost every muscle in the body, continuing a long time, and simulating organic lesions in muscles, joints and mucous membranes

The functional actions of the viscera are by far the most surprising manifestations of hysteria, and frequently the most persistent and distressing Of all these perhaps there is no one more commonly affected than the stomach Hammond says this seems to be the "favorite organ," and this is in accord with my own experience The most obstinate vomiting, persistent flatulency and all the various distressing symptoms of indigestion, characterize a majority of the cases under my own observation

The disturbances of function of other organs, like the heart, lungs, intestines, kidneys (with their inordinate secretion of limpid urine), the bladder with retention and incontinence of urine, the obstinate constipation of the bowels, are all familiar to every practitioner The various forms of convulsions, attended with more or less loss of consciousness, bearing oftentimes a strong resemblance to epilepsy or tetanus, chorea or catalepsy, but distinguished from them by lack of consistency and constitutional disturbance, become the most distressing to witness and the most exhausting in their effects upon the nervous system

The functions of the uterus suffer in every conceivable manner, from complete cessation of the menstrual flow for months at a time, alternating with the most frequent hæmorrhages, either very scanty (lasting but a few hours), or the most alarming in quantity The pain and general nervous symptoms, as a rule, are most marked previous to the flow, oftentimes for many days, and these are so severe as to indicate with certainty the approach of the period even if the patient had no other definite means of knowing it I think this an important diagnostic element More rarely we find the exhaustion consequent upon the excessive hæmorrhages produces the well known hysterical convulsions, so familiar to every practitioner The week preceding and following the flow (including it) is the time during which we may expect, and in fact find the most of these nervous phenomena In many cases the remainder of the month may be comparatively free from any suffering whatever, especially in early life As age advances, however, the periodical suffering leaves its impress upon the entire system Not infrequently we find, as a result of the long continued nervous symptoms, marked changes in the facial expression, and a dull, listless melancholy rests upon a countenance once bright, animated and cheerful The skin suffers especially, in many instances Eruptions of various kinds, especially acne, appear, often to a degree that is disfiguring and loathsome to the patient Alternations of color occur, so that in a few hours we find the most ghastly pallor, followed by a deep mahogany color, which may and in many instances does continue for several hours In several cases under my own observation this latter symptom has been very marked, so that I now look upon it as a prominent diagnostic feature

But enough has been said on the symptoms, and we pass to the etiology Having already given you Sydenham's views on this point, I will add that of a more modern author and then give you some cases from my own experience, and there leave the subject

All authorities agree upon one predisposing cause,
as by far the most impo [illegible] —so important and pre-
dominating that, in my o [illegible] , it becomes very highly
significant, viz sex [illegible] omparatively
short time hysteria in th [illegible] en talked
or written about, and eve [illegible] we know
of the reported cases, th [illegible] cter by
comparison Men have [illegible] nd it
would be wonderfully str [illegible]
times f [illegible] manifestations o

closely correspond with one or more of the multiform phases of what we have just described Hammond says that in "332 cases observed by him in six years, 329 were females" Now it is not the object of this paper to attempt to enter into all the causes that have produced and may continue to produce hysteria in the female The causes may be as various as the symptoms or the cases—I do not deny any cause that may seem to be well established by any mode of reasoning, whether derived from theory or practice I simply propose to give you some instances derived from my own experience, selecting such cases, from quite a large number treated, as will illustrate a variety of symptoms, and results obtained by the methods employed

Case 1—Miss B, age 37, occupation a school teacher for many years A woman of unusually fine culture and strong character in all respects Had been particular successful in her vocation Possesing an indomitable will, she had continued in her work as long as possible, but for about five years previous to coming under my care, had been unable to do any labor, either in teaching or otherwise Her illness dates from eleven years before During the first few years she suffered from impairment of menstrual function, alternating amenorrhœa and menorrhagia, severe dysmenorrhœa, with marked premenstrual pain for many days Gradually the nervous symptoms became more prominent, characterized by insomnia, headaches, neuralgia in spine and sides, flushing and pallor of face, the dark red spot in the centre of each cheek becoming a prominent symptom in the later years She had consulted physicians early in her trouble, but only at rare intervals, and for five years previous to my seeing her, had been constantly under the care of the best she could obtain Notwithstanding she continued to grow worse until she became a helpless invalid, unable to work physically or mentally, or even to move about The mind became disordered to the extent that her friends proposed removing her to an insane asylum

When I saw her she could get around her room and out of doors by holding on to the sides of the room and thus supporting herself, but her limbs seemed to have lost their use so far as supporting the body She slept but little, and could not restrain herself from long attacks of crying I think she had a strong suicidal tendency As each menstrual period approached the symptoms were all aggravated, and during the period she was apparently oblivious of much that occurred Knowing that she had received as good care and treatment as the State afforded, with apparently no relief, I soon became convinced that nothing but a cessation of the menstrual function offered much hope I found sharp retro flexion of the uterus, to which pessaries gave no relief, on account of the extreme sensitive condition of the vagina, preventing her wearing one for any length of time There was also prolapsus of the right ovary, so that it could be felt in the posterior cul de sac It was not particularly tender, however, and was movable and easily pushed up, so I did not attach special importance to the fact of displacement alone Where no pressure exists in these cases, I think we are not to regard it of so much consequence as it was formerly supposed to be

On June 20, 1883, I removed the uterine appendages I found very extensive cystic degeneration of each ovary, the right one being about twice the size The tubes were partially closed, and had several small cysts adherent to them There was a general passive congestion of all the parts removed It was impossible to retain the uterus in place, so the retroflexion continued, and I doubt not retarded the progress of recovery, which from that time commenced, and slowly, but surely, continued, growing better each month All the prominent hysterical symptoms had disappeared at the end of the first year, and she began to enjoy the comfort of life On the anniversary of the day of her operation, at the end of two years she writes as follows

' Please permit me once more an expression of gratitude for the gain of these last two years I can see that I am *stronger* than a year ago, and *much improved* from two years ago I thank you very much and can always assure you of my best wishes " Within the past year she has grown still better In many respects this was one of the very bad cases on account of the severe and obstinate retro flexion

Case 2 —Miss B , aged 24 From her first menstrual period until the day of operation, she suffered the most terrible agony sixteen days out of every twenty eight Twelve of these days of suffering were marked by epileptiform convulsions, pain of the most excruciating character in all parts of the body, the following four days had no less suffering, but were attended with flowing The remaining twelve days of the month were almost entirely free from suffering of any kind whatever, but always at the end began the same round of troubles Her friends became very anxious in regard to her as she frequently threatened to take her own life In this case there was partial prolapse of one ovary

The operation for removal of tubes and ovaries was made, and the specimens showed a condition similar to the last, with the addition of a complete string of small cysts along the entire length of one of the fallopian tubes They looked like a string of small beads There was complete closure of both tubes From that day until now, she has not had (to use her own language) "one minute of any kind of ache or pain," she is perfectly well in all respects and the most grateful and happy person one would rarely meet, with no hysteria or other abnormal nervous symptoms

Case 3 —Miss F , aged 17 Menstruation began at 15, from the first time to the last of a most violent character, both as to pain and quantity of flow—frequently flooding like a woman at childbirth—clots of immense size, and expelled with characteristic laborpains For several months prior to operation, she was not free from severe pain at all Clonic spasms of a most frightful kind in lower extremities, necessitating the constant use of chloroform by inhalation for days together The uterus normal in all respects —no fungus degeneration or evidence of unusual congestion—a curetting under ether revealed nothing abnormal—no enlargement of ovaries or tubes could be demonstrated Everything in way of treatment was resorted to for a year without the slightest relief being obtained The appendages of the uterus were removed, and each ovary was found so completely destroyed by inflammatory action and cystic degeneration that, as my notes have it, "scarcely any normal tissue left in either,"—" tubes closed and cysts along the course of them "

For four weeks she suffered no pain at all, scarcely requiring an opiate, at the end of that time she got out of bed herself, sat up nearly all day, got pelvic cellulitis, from which she suffered more or less for several months, which ended in abscess opening through the uterus into the vagina From that time she began to recover, and is now as well apparently as any one There was never any return of the spasms or general neuralgia, so constant before the operation From a helpless, hopeless victim of terrible suffering, she is now a comfortable, useful young lady In this case there was an entire absence of any of the usual developments at the period of puberty —no enlargements of the breasts—no hair at all on the mons veneris, or external genitals I think the unsexing in this case could not have been very much

Cases 4 and 5—So closely resemble each other, and being of another type from those described, I give them together Miss L and Miss N , of about the same age, 24 Miss L , temperament, family and personal, nervous Four sisters—all nervous—three have painful menstruation Menstruated first at 13 —not regular first year—nausea, pain in back, headache and pain in the lower limbs, length of period five or six days Had measles four and a half years before the operation, since which has been suffering much at periods—flow of but one day—within the past two and a half years the flow has been followed by nausea and vomiting nearly every morning for two weeks Hysterical symptoms of a painful convulsive character at each period—screaming, crying, globus, etc Never had hysteria before measles Has been under the best medical care she could obtain, with all the opportunities of best hospital care—no relief whatever I found a very sharp antiflection at cervico corporeal junction—made forcible dilatation, followed by the usual local treatment of packs, douches, rest, etc , no relief Operation showed extensive follicular cystic degeneration of both ovaries, with atheromatous closure of tubes

Miss N so closely resembled the last, both in having measles as a cause of aggravation of symptoms and antiflexion, that a history of one is that of the other in many respects The flow was preceded by many days of severe suffering, which became hysterical convulsions during the flow, which lasted two weeks The character of pain and amount of flow, at each period, resembled a miscarriage of the severest kind, dilatation afforded no relief, no fungus growth that could account for flooding After several years of treatment with no benefit, the operation of removal of uterine appendages was made with entire relief to all suffering From being a chronic invalid she is now entirely well and able to perform

The disturbances of function of other organs, like the heart, lungs, intestines, kidneys (with their inordinate secretion of limpid urine), the bladder with retention and incontinence of urine, the obstinate constipation of the bowels, are all familiar to every practitioner The various forms of convulsions, attended with more or less loss of consciousness, bearing oftentimes a strong resemblance to epilepsy or tetanus, chorea or catalepsy, but distinguished from them by lack of consistency and constitutional disturbance, become the most distressing to witness and the most exhausting in their effects upon the nervous system

The functions of the uterus suffer in every conceivable manner, from complete cessation of the menstrual flow for months at a time, alternating with the most frequent hæmorrhages, either very scanty (lasting but a few hours), or the most alarming in quantity The pain and general nervous symptoms, as a rule, are most marked previous to the flow, oftentimes for many days, and these are so severe as to indicate with certainty the approach of the period even if the patient had no other definite means of knowing it I think this an important diagnostic element More rarely we find the exhaustion consequent upon the excessive hæmorrhages produces the well known hysterical convulsions, so familiar to every practitioner The week preceding and following the flow (including it) is the time during which we may expect, and in fact find the most of these nervous phenomena In many cases the remainder of the month may be comparatively free from any suffering whatever, especially in early life As age advances, however, the periodical suffering leaves its impress upon the entire system Not infrequently we find, as a result of the long continued nervous symptoms, marked changes in the facial expression, and a dull, listless melancholy rests upon a countenance once bright, animated and cheerful The skin suffers especially, in many instances Eruptions of various kinds, especially acne, appear, often to a degree that is disfiguring and loathsome to the patient Alternations of color occur, so that in a few hours we find the most ghastly pallor, followed by a deep mahogany color, which may and in many instances does continue for several hours In several cases under my own observation this latter symptom has been very marked, so that I now look upon it as a prominent diagnostic feature

But enough has been said on the symptoms, and we pass to the etiology Having already given you Sydenham's views on this point, I will add that of a more modern author and then give you some cases from my own experience, and there leave the subject

All authorities agree upon one predisposing cause, as by far the most important—so important and predominating that, in my opinion, it becomes very highly significant, viz sex Until within a comparatively short time hysteria in the male was not even talked or written about, and even accepting all that we know of the reported cases, they are trivial in character by comparison Men have a nervous system, and it would be wonderfully strange if we did not sometimes find manifestations of disease that would very closely correspond with one or more of the multiform phases of what we have just described Hammond says that in "332 cases observed by him in six years, 329 were females" Now it is not the object of this paper to attempt to enter into all the causes that have produced and may continue to produce hysteria in the female The causes may be as various as the symptoms or the cases—I do not deny any cause that may seem to be well established by any mode of reasoning, whether derived from theory or practice I simply propose to give you some instances derived from my own experience, selecting such cases, from quite a large number treated, as will illustrate a variety of symptoms, and results obtained by the methods employed

Case 1—Miss B, age 37, occupation a school teacher for many years A woman of unusually fine culture and strong character in all respects Had been particular successful in her vocation Possesing an indomitable will, she had continued in her work as long as possible, but for about five years previous to coming under my care, had been unable to do any labor, either in teaching or otherwise Her illness dates from eleven years before During the first few years she suffered from impairment of menstrual function, alternating amenorrhœa and menorrhagia, severe dysmenorrhœa, with marked premenstrual pain for many days Gradually the nervous symptoms became more prominent, characterized by insomnia, headaches, neuralgia in spine and sides, flushing and pallor of face, the dark-red spot in the centre of each cheek becoming a prominent symptom in the later years She had consulted physicians early in her trouble, but only at rare intervals, and for five years previous to my seeing her, had been constantly under the care of the best she could obtain Notwithstanding she continued to grow worse until she became a helpless invalid, unable to work physically or mentally, or even to move about The mind became disordered to the extent that her friends proposed removing her to an insane asylum

When I saw her she could get around her room and out of doors by holding on to the sides of the room and thus supporting herself, but her limbs seemed to have lost their use so far as supporting the body She slept but little, and could not restrain herself from long attacks of crying I think she had a strong suicidal tendency As each menstrual period approached the symptoms were all aggravated, and during the period she was apparently oblivious of much that occurred Knowing that she had received as good care and treatment as the State afforded, with apparently no relief, I soon became convinced that nothing but a cessation of the menstrual function offered much hope I found sharp retro flexion of the uterus, to which pessaries gave no relief, on account of the extreme sensitive condition of the vagina, preventing her wearing one for any length of time There was also prolapsus of the right ovary, so that it could be felt in the posterior cul de sac It was not particularly tender, however, and was movable and easily pushed up, so I did not attach special importance to the fact of displacement alone Where no pressure exists in these cases, I think we are not to regard it of so much consequence as it was formerly supposed to be

On June 20, 1883, I removed the uterine appendages I found very extensive cystic degeneration of each ovary, the right one being about twice the size The tubes were partially closed, and had several small cysts adherent to them There was a general passive congestion of all the parts removed It was impossible to retain the uterus in place, so the retroflexion continued, and I doubt not retarded the progress of recovery, which from that time commenced, and slowly, but surely, continued, growing better each month All the prominent hysterical symptoms had disappeared at the end of the first year, and she began to enjoy the comfort of life On the anniversary of the day of her operation, at the end of two years she writes as follows

'Please permit me once more an expression of gratitude for the gain of these last two years I can see that I am *stronger* than a year ago, and *much improved* from two years ago I thank you very much and can always assure you of my best wishes" Within the past year she has grown still better In many respects this was one of the very bad cases on account of the severe and obstinate retro flexion

Case 2—Miss B, aged 24 From her first menstrual period until the day of operation, she suffered the most terrible agony sixteen days out of every twenty eight Twelve of these days of suffering were marked by epileptiform convulsions, pain of the most excruciating character in all parts of the body, the following four days had no less suffering, but were attended with flowing The remaining twelve days of the month were almost entirely free from suffering of any kind whatever, but always at the end began the same round of troubles Her friends became very anxious in regard to her as she frequently threatened to take her own life In this case there was partial prolapse of one ovary

The operation for removal of tubes and ovaries was made, and the specimens showed a condition similar to the last, with the addition of a complete string of small cysts along the entire length of one of the fallopian tubes They looked like a string of small beads There was complete closure of both tubes From that day until now, she has not had (to use her own language) "one minute of any kind of ache or pain," she is perfectly well in all respects and the most grateful and happy person one would rarely meet, with no hysteria or other abnormal nervous symptoms

Case 3—Miss F, aged 17 Menstruation began at 15, from the first time to the last of a most violent character, both as to pain and quantity of flow—frequently flooding like a woman at childbirth—clots of immense size, and expelled with characteristic laborpains For several months prior to operation, she was not free from severe pain at all Clonic spasms of a most frightful kind in lower extremities, necessitating the constant use of chloroform by inhalation for days together The uterus normal in all respects—no fungus degeneration or evidence of unusual congestion—a curetting under ether revealed nothing abnormal—no enlargement of ovaries or tubes could be demonstrated Everything in way of treatment was resorted to for a year without the slightest relief being obtained The appendages of the uterus were removed, and each ovary was found so completely destroyed by inflammatory action and cystic degeneration that, as my notes have it, "scarcely any normal tissue left in either,"—"tubes closed and cysts along the course of them"

For four weeks she suffered no pain at all, scarcely requiring an opiate, at the end of that time she got out of bed herself, sat up nearly all day, got pelvic cellulitis, from which she suffered more or less for several months, which ended in abscess opening through the uterus into the vagina From that time she began to recover, and is now as well apparently as any one There was never any return of the spasms or general neuralgia, so constant before the operation From a helpless, hopeless victim of terrible suffering, she is now a comfortable, useful young lady In this case there was an entire absence of any of the usual developments at the period of puberty—no enlargements of the breasts—no hair at all on the mons veneris, or external genitals I think the unsexing in this case could not have been very much

Cases 4 and 5—So closely resemble each other, and being of another type from those described, I give them together Miss L and Miss N, of about the same age, 24 Miss L, temperament, family and personal, nervous Four sisters—all nervous—three have painful menstruation Menstruated first at 13—not regular first year—nausea, pain in back, headache and pain in the lower limbs, length of period five or six days Had measles four and a half years before the operation, since which has been suffering much at periods—flow of but one day—within the past two and a half years the flow has been followed by nausea and vomiting nearly every morning for two weeks Hysterical symptoms of a painful convulsive character at each period—screaming, crying, globus, etc Never had hysteria before measles Has been under the best medical care she could obtain, with all the opportunities of best hospital care—no relief whatever I found a very sharp antiflection at cervico corporeal junction—made forcible dilatation, followed by the usual local treatment of packs, douches, rest, etc, no relief Operation showed extensive follicular cystic degeneration of both ovaries, with atheromatous closure of tubes

Miss N so closely resembled the last, both in having measles as a cause of aggravation of symptoms and antiflexion, that a history of one is that of the other in many respects The flow was preceded by many days of severe suffering, which became hysterical convulsions during the flow, which lasted two weeks The character of pain and amount of flow, at each period, resembled a miscarriage of the severest kind, dilatation afforded no relief, no fungus growth that could account for flooding After several years of treatment with no benefit, the operation of removal of uterine appendages was made with entire relief to all suffering From being a chronic invalid she is now entirely well and able to perform any kind of labor Miss L was also completely relieved from suffering, but has not yet regained her strength so as to be able to be about, although she is improving rapidly, considering her very anæmic condition previous to operation

The pathological condition of the tubes and ovaries were similar in Miss N 's case, except that there were two or three cysts of the tubes as large as peas

Case 6 —Mrs F , age 30, married seven years, had three children within four years, never pregnant after that, although no means were used to prevent it Three years ago began to have nausea and vomiting, which in six months became a constant thing after taking food She and her husband believe that for the two years previous to operation she did not retain a spoonful of any kind of food She became almost entirely bloodless, and so weak that she would frequently fall to the floor, when about her work, in a hysterical convulsion, that would sometimes last for hours Symptoms aggravated before and during menstrual period

After two years of treatment under my care I became convinced that only a cessation of menstruation would give relief For a few months she tried various modes of treatment, and finally consented to the operation In three weeks she was able to return to her home From the day of the operation she did not vomit once, but was able to eat everything she desired Previous to the operation her finger nails had become entirely dead, flattened, clubbed and turned up at the ends, so as to cause the ends of the fingers to bleed and be constantly painful Since the operation everything has changed she is a strong, florid, fine healthy woman as the city affords taking entire charge of her family and riding on horseback and driving every day The left ovary was twice the normal size and contained a cyst holding half a drachm

A similar case to the last, so far as the constant vomiting is concerned, I operated upon two months since, and so far as we are able to judge at this time the result is equally good Married sixteen years, a great sufferer from dysmenorrhœa fourteen years, during which time she has been under good treatment from various intelligent physicians, never pregnant Alternations of amenorrhœa and severe flooding, with repeated attacks of pelvic peritonitis Tubes and ovaries adherent throughout their entire length I had great difficulty in detaching them, but finally succeeded The ovarian tissue was entirely destroyed by inflammatory softening and exudate, tubes impervious and like whipcord, a chronic partial congestion in all the pelvic organs Severe and obstinate vomiting followed operation for more than two weeks, accompanied and doubtless largely caused by peritonitis Now she is taking a good quantity of nourishing food with impunity, and is recovering very rapidly

I have selected these two together, as they illustrate one phase of the reflex symptoms

In another case Miss L , aged about 30, hysterical catalepsy had been a marked symptom for several years She would lie for weeks at a time utterly oblivious of everything and every one about her At intervals rigidity of body would come on, lasting for hours Neither drugs or other means of treatment gave any relief She had all the benefit of hospital care and attention for months at a time There was marked retroflexion with complete retroversion Replacement and support would relieve for a short time, but nothing permanent came until the operation of castration was made, since which she has never had the slightest return of any one of the symptoms Extensive follicular degeneration of ovaries was found Insomnia, vomiting and indigestion had been prominent in this case She eats, sleeps and digests perfectly, and is now a healthy, well nourished young lady

I have not time, even had I the courage, to trespass upon your patience to report any more cases I have now made the operation twenty-five times, and each case has a certain amount of professional interest Four or five have been made for uterine fibroids, mostly for excessive hæmorrhage, with complete relief to the hæmorrhage One case the removal was made hoping it might stop the growth of a fibroid and relieve the suffering due to pressure There has been no relief, however I think cases like this should have hysterectomy The cases reported were selected as types of the various phases of hysteria Among the cases not reported are types of the same phases, and with as good results

In only one instance I was unable to remove the entire substance of the ovary and tube, and this is the only instance of continued menstruation She suffers very much at these periods, and I think I shall make another trial to finish it In no case have I failed to find well marked disease of the appendages, either strong evidences of former attacks of oophoritis, as indicated by exudate and other organic changes in the substance of the ovary, or enlargement and stenosis of the fallopian tube In not more than four instances have I been able to make a diagnosis by the touch, but have in all the others operated entirely for the relief of the hysterical symptoms With the single exception named, in every case great relief has followed, and with two exceptions, I have no reasonable doubt that a complete cure will result after a reasonable length of time We cannot expect that a nervous system that has suffered for years will at once resume its normal functions The wound is tender after the thorn has been removed Effects do not immediately cease on removal of the cause, women suffer more or less from some disorders of the nervous system at the natural menopause, similar symptoms naturally follow an artificial one

I do not by any means claim that all hysterical symptoms are due to diseased uterine appendages, but I am sure, from this experience, that in these cases they stand in the relation of cause and effect I know that in a very large majority of these cases these women have been suffering invalids for years, and that all modes of treatment have been of no avail From being burdens to themselves, and dependent upon their friends for help, they are now comfortable and independent Through long suffering and in many instances from lack of sympathy for their suffering, life has lost its charm and they would gladly have rid themselves of it, while now they are glad to take their places as useful members of society

I have never operated in any case where I have not been well satisfied, either from my own care of the case, or from that of intelligent physicians, that further treatment in any other manner would be of no avail I have no regrets at the course pursued up to the present time, and I know of no case where the patient regrets the step she took

In answer to the objection that it unsexes the woman, I have only to say that in all the married wo men, they either have never been pregnant or have not since the beginning of their most serious symptoms, even though several years have elapsed since their last childbirth

Dr W Gill Wylie, professor of gynecology in the New York Polyclinic, in reporting thirty seven operations for removal of the uterine appendages, in the *Medical News* of March 27, 1886, says "I have yet to see a well-marked case of hystero-epilepsy or decided hysteria operated upon, in which the ovaries were not found in a state of cystic degeneration or very much atrophied And these are nearly always associated with an imperfectly developed or atrophied uterus " And in the same paper he says, what I have found true in several cases, "that in those cases where the subjective symptoms were chiefly reflex and of a nervous order, the *immediate* results were by no means always satisfactory, although many recovered after being seemingly unimproved for several months "

When we take into account how little has formerly been done in these long-standing reproaches to the profession, we can certainly get much comfort from the results in his cases On this point he says "It is yet too soon to speak positively about the results of the operation in all classes of cases, but I can say without hesitation that in those cases where the subjective symptoms were actual local pain and physical inability to go about without causing persistent pain —and almost all the cases of pyo-salpinx would come under this head—the results were good and satisfactory to the patient and physician In many cases the relief from pain was gratefully acknowledged at once "

This is so thoroughly in accord with my own experience that I need only to quote it as applicable in a majority of my own cases The experience of Battey and Tait, who are deservedly the pioneers in this department of gynecology, is now so well known to the profession, that it would be supererogation at this time to allude to it in detail It is no longer a question with them what shall be done with this large class of sufferers, by hundreds of cases they have demonstrated the utility of the procedure

The very extensive and valuable papers relating to to this and kindred subjects, by Mary Putnam Jacoby, show that what at first glance may seem to be only slight changes in the ovary and tubes, are really severe structural organic changes, that without doubt have destroyed their function

If I were asked to formulate my views, derived from my own experience and that of the men who have done much more in this direction, I should sum up about as follows

1 That these (so called) hysterical symptoms occur almost exclusively in women That whenever any of them do occur in men they are much less in degree, even if they do not differ in kind

2 That it is fair to presume from the first proposition that it is due to disease of some organ or organs peculiar to women

3 That they are not due to disease of the uterus alone, for when all apparent abnormalities of the uterus are corrected, the symptoms, very often, are not in the least relieved

4 That all modes of treatment, other than operation, have failed to cure, and in most instances have not ameliorated, the symptoms, even where the disease was believed to exist in the uterine appendages

5 That the large majority of all cases operated upon have been entirely cured of the symptoms for which the operation was made, and the remnant have been relieved and are continuing to improve

6 That it is impossible, in a majority of cases, to determine by the touch, disease of these organs that will produce the symptoms alluded to

7 That one can by these symptoms alone make a sufficiently satisfactory diagnosis to warrant the operation

8 That after correction of all well known and clearly diagnosticated uterine troubles, these symptoms are not relieved, we are justified and required, for the cure of our patient, to recommend this remedy

9 That the operation does not in any case destroy the sexual desire, or in any way unsex the woman, except so far as it may prevent further childbearing

10 That in a majority of cases requiring the operation the woman is already sterile

11 That in my own experience the specimens removed have been found so changed by inflammatory action as to be cirrhotic, or otherwise destroyed, either by softening or cystic degeneration of both ovaries and tubes, with very frequent stenosis of the latter

12 That a fatal result from the operation is extremely rare, if it is carefully performed and closely and intelligently managed as to the after treatment In the twenty-five cases operated upon there has been but one death

It is certainly time that the profession were done with the old idea that a hysterical woman is only to be laughed at, and treated as one who deserves no consideration at our hands Thousands of women, of the strongest character, have been cruelly and shamefully treated by their friends, even while they were suffering the most excruciating agony, and simply because the profession has given countenance to the theory that "she could prevent it if she chose," that she was "only hysterical " We cannot expect more from the laity than we teach them Instead, let us each strive to "contribute something to the science of pathological anatomy" out of this mass of distressing symptoms

ORIGINAL ARTICLES

THE DANGERS OF KISSING[1]

BY SAMUEL S ADAMS, A M , M D

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE, MEDICAL DE PARTMENT OF THE NATIONAL UNIVERSITY ONE OF THE ASST ATTENDING PHYSICIANS CHILDREN S HOSPITAL D C ETC

For more than two years past I have had in mind the preparation of this paper, and much of the material has been collected during that period I have only recently, however, examined the literature of the subject, and was greatly surprised to find it so meagre None of the ideas advanced in this article have been borrowed from this literature, as they were conceived before this was examined, but I do not claim that they are specially new, however original they may be

My first purpose was to discuss the subject from a purely professional standpoint In a late number of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION[2] the editor commented on "Compulsory Kissing," basing his remarks upon an article from the pen of Eleanor Kirk,[3] in which she undertakes to defend the parent who has the courage to oppose this reprehensible habit After reading these two papers I determined to broaden the scope of this communication and cast it in a mould more for the general reader than is consistent with a purely professional audience

As I said before, I was surprised at the meagreness of the professional literature upon this subject There may be isolated reports of cases of diseases transmitted by kissing which I have not found, but the library of the Surgeon General U S Army contains only two works bearing on the subject, both of which were published in the early part of the eighteenth century

These are in the Latin, and I am indebted to my friend, Dr Kolipinski, for valuable assistance rendered in their translation From the following brief abstracts may be gathered the general drift of these writers, and I also add one or two notes from others who have mentioned the fact of a disease being communicated by kissing

Ermelius[4] says that reason and experience prove that the saliva is especially calculated to be a carrier of the contagium The "molecules" (poisonous germs) are hidden under its viscidity It may contain a great number of "*aireo ætherial particles*" of a benign or malignant nature, as hydrophobia

Forestus[5] has shown that kissing has been the source of contagion in syphilis

Hentschel[6] contends that the "*miasms*" of various diseases can be carried with kisses—scorbutic, venereal, purpuric, petechial, scabious, leprous, pestilential, and all other species of contagion in which the causes are subtile Not only the volatile substances which may be conveyed to others in respiration, but also the saliva and the vapor and exhalations of the mouth may be transmitters Therefore, ulcerous infection salivary tumors, cancrum oris, scurvy, syphilis and phthisis may likewise be communicated

Paullini[1] bewails the transmission of scurvy among German children by kissing as a salutation, a custom of England, Holland and France

Oertel reports two cases of diphtheria contracted by a kiss, the membrane appearing on the second day

Kissing is a custom that not only prevails universally among the human race but also in some of the lower animals There is a vast difference, however, in the exercise of this custom In the former the kiss is given to almost any submissive person, while in the latter it is only employed as one of the means of expressing affection The truth of this latter proposition is well illustrated in the bird which will frisk among its playmates without being tempted by their charms to give up the kiss which is reserved for its mate alone It may be said that the animal looks about, finds its mate, bestows its kisses, propagates, raises its offspring and, finally, divorces itself, thereby gaining numerous mates, but we know that many animals, if undisturbed, will continue with the same mate and raise successive broods, and will not seek a new one each season There is this difference between the animal and the man the one mates before it kisses, the other kisses before he mates

Reasoning from analogy the conclusion that kissing was originally intended to give utterance to the affection is reasonable How far this intention has been perverted by man is a problem not easily solved, and yet the solution would seem easy if one were allowed to reason from the promiscuous and broadcast kissing of every day life Instead of being an expression of one of the noblest attributes of man, it has almost degenerated into an insincere, unmeaning and common-place salutation

When kissing is confined to the same sex there is a great difference in its sincerity In some European countries the custom is for men to kiss one another on the forehead or cheek but in this country the practice prevails only to a very limited extent, and only then as an expression of the warm affections between father and son or brother and brother

Between females the act has become so common that it is hardly more than a ready and easy mode of greeting, having no greater meaning than the conventional hand shaking

When kissing is extended to the opposite sex I must accord to woman the credit of being the more cautious upon whom this index of devotion is bestowed

All this simply shows that kissing is extensively and injudiciously practiced by those who have arrived at the years of discretion, thereby setting a bad example for those of less mature judgment There can be no question that certain transmissible diseases are communicated by promiscuous kissing among adults, and it is fair to assume that the same diseases are communicated to children in the same way Adults are supposed to be capable of judging for themselves in such matters and it would be folly in me to attempt

---

[1] Read at the meeting of the Washington Obstetrical and Gynæcological Society

[2] September 19 1885

[3] 'Babyhood,' September, 1885

[4] De osculo ovim philtri exserente Inaug Dis 1719

[5] Ibid

[6] De Osculo Morbifico et Mortifero, 1746

---

[1] Ibid

Ziemssen's Cyclopædia Vol 1 p 595

to restrict them in exercising these privileges, but as they are the guardians of the children this paper will be devoted to pointing out to them some of the dangers to infants and children of promiscuous kissing, and the suggestion of a few remedies for its suppression.

From birth to the beginning of sexual evolution, perhaps, the child is exposed to moral, mental and physical dangers from promiscuous kissing. Up to the latter age kissing is not a matter of choice, but an act made compulsory by the kisser or by someone having the supervision of the child. Indeed the infant is the passive victim, and it is not until the third or fourth year that the child repels the aggression. Then, it too frequently happens that in spite of its disinclination, it is forcibly compelled to submit. With increased strength comes a growing aversion to kissing, coincident with the rapid growth and physiological development of childhood, which seems to be one of the many wise provisions of nature for protecting the delicately constructed and rapidly changing organism from the numerous extraneous causes of disease.

It would be interesting to follow a baby from the time it is placed in its perambulator and receives the maternal kiss until it returns later in the day, in order to note the peculiarities, both mental and physical, of the numerous persons who stop to kiss it. To gain some idea of the mixture and the probabilities of the transmission of disease one need only sit in one of our large parks on a bright sunny morning and study the physiognomies of the strangers who kiss the baby as it lies in its carriage. At this time there are not unlikely a dozen maids with as many or more infants and young children congregated there. These custodians extend the matutinal salutation by kissing the babies all round. Among a dozen such people it is not improbable that some benign or malignant disease may be found. In a former contribution[1] I pointed out the difficulty in selecting wet-nurses and the danger to the infant in being wet nursed. I then claimed that we could not vouch for the health of any woman because of the latency of many diseases. With equal weight, I believe, the same argument may be advanced respecting the selection of nurse maids. Mothers are afraid certain transmissible blood diseases may be conveyed to the child through the wet-nurse's milk, and they want their family physician to assume the responsibility of her selection. It may not have occurred to these watchful mothers that the same blood diseases can be conveyed by other liquids of the body, and this, perhaps, may account for the absence of the doctor's advice in choosing the maid.

If it be true that tuberculosis is due to specific germs which pervade every portion of the body and circulate in every fluid, then the child's chances of being inoculated by the saliva, in kissing, are as great as by the milk in nursing. So impressed am I with this mode of inoculation, that I usually inquire into the maid's history whenever I am called upon to treat an eruptive disease of doubtful character in a child.

Not long since I observed, lying in a carriage, a beautiful baby which indicated every evidence of wealth and high social standing. Pushing this vehicle was a girl whose facies bore evidence of the secondary symptoms of syphilis. Would it have been surprising if the virus had been transferred by a kiss to this child? On the contrary, it will be marvelous if it escape. The merest tyro in medicine would assume the responsibility of discharging such a maid.

Some time ago a fellow practitioner reported the case of an estimable young lady who had a chancre on her lip. Admission confirmed the opinion of her physician that the man to whom she was betrothed had contracted the disease and, unfortunately, had inoculated her lips in kissing her. Suppose this man had kissed one or more of this dozen babies—a thing not at all improbable—and they had caught the disease? The result might have been the same, but would the source of contagion have been as easily discovered?

Mechanical injuries may also be caused by kissing. When it is remembered how delicate the infantile structures are, the wonder is that they so often escape injury. May not some of the misshapen mouths and distorted features be traced to too much kissing? One need only reflect upon the powerful suction sometimes displayed in such performances to realize its dangers. There is a well authenticated case in which the membrana tympani was ruptured by kissing the external opening of the ear, undoubtedly due to suction, and I have seen an ecchymotic spot on a child's cheek caused by prolonged suction in kissing it. Although I have not seen any injury to the eye positively traceable to this cause, nevertheless, in my opinion, its delicate structures could easily be injured in this manner.

These perpetual baby kissers are not particular where they ply their vocation. The mouth and face are the sites most frequently selected, but other parts of the infantile anatomy seem to answer the purpose equally as well.

But aside from these physical injuries, there are moral ones as well in childhood. At this time of life the disposition of the child is being formed, and it should be the aim of every parent to train it so as to be gentle and kindly. As the child grows older kissing perhaps becomes obnoxious to it, yet some parents there are who will force it to submit to the distasteful ordeal even to the point of inflicting corporal punishment for refusal. How many of my readers can recall those happy juvenile days that were made miserable by punishments inflicted because they refused to be kissed by some repulsive visitor. Who of us but can revert to those moments of torture when we were called from our games to be kissed? I venture to say that many of my readers have undergone the child's experience, and have run at the sight of a visitor because remaining meant kissing. Were you punished for escaping? If so, do you still wonder that when children are forced to these distasteful performances they sulk and pout, fret and cry, run and hide, and disobey their parents? If you will look about among your acquaintances you can no doubt pick out not a few the thought of kissing anyone of whom would cause your appetite to vanish and the natural quietude of your stomach to be disturbed, and yet would you compel a child to submit to an act distasteful to yourself, as if its olfactories were less acute and its delicate stomach less easily offended?

---

[1] How Shall We Feed the Baby? Archives of Pediatrics, April, 1885.

There are many diseases met with in children which I believe are communicated by kissing. Frequently we see diseases that are not classed as contagious, and yet all the children in a family have them. Probably in such a case the disease was transplanted in kissing, and this opinion seems reasonable when we observe that such diseases usually make their appearance on the face or lips. Among this class may be mentioned herpes, eczema, and ulcerative stomatitis. Most parasitic diseases are conveyed by close contact only, and their frequency in childhood may, not improbably, be attributed to the frequency of this vicious custom. I have no doubt that in isolated cases of eruptive diseases, when every one is puzzled to find the origin, inquiry might reveal the fact that the child was inoculated by the germ from the lips of a distant relative, friend, casual visitor or stranger who had lately kissed it.

As the child approaches puberty a marked difference in the sexes is noticeable. The girl becomes wary of the caresses of the boy, and this I believe to be the result of instinct rather than of reasoning, parental precept or education. With this period the innate modesty peculiar to woman becomes manifest. She refuses to romp and play childish games, and assumes more dignified airs. No one but the girl who is undergoing this physiological change can properly appreciate the perplexing difficulties encountered in adapting her mode of life to the requirements of her age. She must restrict the heretofore privileged bachelors by drawing the line of their salutations at hand shaking. By thus asserting her womanhood she not only offends these sage visitors, but also, perhaps, establishes a reputation among her eligible spinster relatives for haughtiness, prudery and general disagreeableness.

At this critical age it is entirely different with the boy. He who was admonished or perhaps chastised by his parents for being shy, diffident or unwilling to be kissed, suddenly astonishes the family by an entire change of disposition. He too begins to feel the importance of his age, and, unlike the girl, takes every advantage the opposite sex will give. Boys at this age are very susceptible to the flattery of escorting young ladies about, and are quick to perceive the advantage of being accommodating and polite. They enjoy the company of ladies who consider them little boys, and for their good behavior and politeness reward them with a kiss. When such freedom is given a boy at such a critical and susceptible age may we not conclude that the consequences will be harmful? If women would adhere to the strict *regime* they adopt upon entering their "teens," and not depart from it to reward the civilities of youth, it would do more than any other restriction to correct these abuses of kissing.

One of the most fortunate reformations of childhood would be the abolition of kissing games. I think the custom is gradually dying out. Only a few years ago a party of children could not amuse themselves without spending most of their time at these games. If a child were independent enough to refuse to join in such pastimes it was either "shamed" into it or adjudged disagreeable. Ringworm is a very common disease among school children, and its most frequent seat is the face. These games used to be one of the most common amusements of children during their play-hours at school, and I am convinced that the rapid spread of this disease could have been directly traced to the promiscuous kissing in these games. I also believe that if the spread of the contagium of many other local diseases of the face and scalp could be traced it would be found to originate in the same cause.

Many of the vices of later childhood may, I believe, be caused by early and undue excitement of the undeveloped sexual organs, caused by this vicious custom of promiscuous kissing. It may be contended that no physical injury can be done at this age on account of the imperfect procreative functions, but we know that repeated excitation of any organ hastens its development, and that there is such an intimate relation between the lips and the sexual organs that excitation of the former by kissing must necessarily cause excitation of the latter, and consequent premature development. Some may claim that the child's sexual organs are not excited by kissing, but the facts do not sustain this opinion, and, on the contrary, demonstrate its error. I firmly believe that frequent kissing induces precocious puberty, which we all know is injurious to the moral, mental and physical well-being of the child, and I have no doubt that hyper excitation of the passions of the precociously developed child is the frequent cause of diseases incident to unnatural irritation and congestion. I have in mind a case of serious irregularity in menstruation, in a girl of 14 years, which I was clearly able to trace to its origin in this pernicious custom.

In attacking such a universal custom with the hope of offering a remedy for it I am conscious that it is much easier to suggest a specific for the cure of a great social evil than to apply it. The suppression of the kissing salutation must be a matter of education and will not be an immediately accepted reformation. We cannot hope that all the parents of to day will promptly see the possible dangers in promiscuous kissing. It would be ridiculous to expect that any family would exclude kissing from its methods of salutation. Indeed, under ordinary circumstances, it would seem unreasonable in a mother to refuse to allow members of her own family to kiss her child, and yet it would, undoubtedly, be fully justified by all reasonable people if she should insist upon it being exclusively a family privilege, and even a member of the child's own immediate family who has either a benign or malignant disease of a contagious nature should unhesitatingly be excluded from this privilege if the mother desire to secure the safety and health of her offspring.

Under no circumstances should persons whose histories are either doubtful or unknown be allowed to kiss children. Nurses should be carefully instructed in the dangers of the custom, and should be strictly cautioned to exercise vigilance in order to protect the child from the kisses of strangers. Neither should they be permitted to indulge in the habit.

When the child is old enough to appreciate the dangers it should be taught to respectfully decline the proffered salutation. If it were taught to refuse every one then there would be little fear of offending sensitive people. If a child seem unwilling to be kissed the parent should never compel it to submit, and for disobedience in this respect it should never be punished. It has a reason for its refusal, although it may be incapable of imparting it. Children should not be encouraged to play kissing games.

As the child approaches puberty there should be a freer communication between it and the parent. The latter should point out the approaching physiological changes and their attendant dangers—prominent among which I place kissing.

To correct the abuses of kissing will not be an easy or enviable task for the mother, but if she will begin to correct them soon enough it will not be long before she will be able to eliminate this almost vice from the category of the probable causes of disease.

In offering the above suggestions to the thoughtful consideration of this Society I have no desire to achieve martyrdom in the eradication of what may be called one of the great social evils. I have only aimed to point out a few of its many dangers which are well known to medical men, and I trust that it may be the means of inducing the mothers of the coming generation to take the initial step towards curtailing if not wholly suppressing this insincere, commonplace and dangerous mode of salutation.

1525 I St., Washington, D. C.

MEDICAL PROGRESS.

INFLUENCE OF KAIRIN, THALLIN, HYDROCHINON, RESORCIN AND ANTIPYRIN UPON THE HEART AND BLOOD VESSELS.—In a series of experiments on this subject, DR. H. G. BEYER draws the following conclusions:

Kairin.—The conclusions which we may draw from experiments on the frog's tongue with kairin are (1) that it produces dilatation of the capillaries and veins, which dilatation much exceeds that of the arterioles, which latter is sometimes preceded, sometimes followed, by an abnormal contraction; (2) that it causes a slight acceleration in the current in the arterioles and a slowing of the flow in the small veins.

All the experiments made with kairin on the heart (nine in number), show the great weakening effect it exerts upon the contracting power of the cardiac muscle. In some cases in which this organ happened to be in good working order, and low venous as well as arterial pressure was used, a very slight but transient increase in the rate, and even in the force of its contraction was noticed when the dose was not too large; but this was always quickly followed by signs of general weakening. The entire organ, then, becomes much enlarged, occupying from twice to thrice its normal volume, its contractions become peristaltic, incomplete, and sluggish; the auricles keep well filled with blood, never emptying themselves completely. As a rule, the auricles are much sooner affected and recover much later than the ventricle. Under these circumstances the rate of the heart is much decreased, the amount of work done is sometimes increased, owing to the relaxed condition of the ventricle, but more often decreased, and, finally, diastolic arrest ensues. The heart presents the color of kairinized blood, which, however, again disappears, but, after repeated kairinization, it becomes permanent—in other words, the color of the blood has become the color of the muscular substance of the heart. From this condition the heart was never found to recover; the organ seems as if gelatinized, moves *in toto*, shrinks, and contracts little by little, responds to neither mechanical nor electrical stimulation, and is to all appearances dead. This condition of the heart may almost at once be produced by injecting a two per cent. solution of kairin into its substance, by which arrest in systole is produced.

The temporary diastolic cardiac arrest which kairin produces is most probably due to its stimulating effect on the terminal filaments of the pneumogastric, and the vascular dilatation to a similar influence on the ganglia of the vaso dilators. Kairin must also be considered a muscle poison.

From the results of experiments, it is quite clear that kairin reduces temperature, both by diminishing heat production and by increasing heat radiation. The distinctive influence it exerts on the red blood-corpuscles, however, and the weakening effect upon the heart, render its employment objectionable and dangerous.

Thallin.—Summing up the results of experiments with thallin upon the heart and blood vessels of the frog and terrapin, we notice, first, the striking similarity which exists between it and kairin, the only difference, in fact, being that thallin has a much less injurious influence upon the ventricle, the auricle and blood vessels being equally affected by both drugs.

The temporary diastolic cardiac arrest produced by both these drugs we are inclined to attribute for the most part to their stimulating influence on the terminal filaments of the pneumogastric. The dilatation of the blood-vessels, most probably, is produced by their stimulating effect upon the ganglia of the vasodilators. The subsequent contraction of both heart and arterioles is due to their direct action upon the muscular substance.

Thallin, like kairin, reduces temperature by diminishing heat production, and by increasing heat radiation; as an antipyretic it is less dangerous, but no less objectionable, than kairin, for while its effect upon the ventricle of the heart is less depressing than that of kairin, its influence upon the blood-corpuscles is sufficient to condemn it.

Hydrochinon.—From all the experiments made with hydrochinon on the heart and blood-vessels of the frog and terrapin, we must arrive at the conclusion that it reduces temperature mainly by increasing heat radiation owing to its influence upon the veins, which it largely dilates, and the capillaries and arterioles, which it also dilates, though to a less extent. Through its influence upon the red blood corpuscles it probably also diminishes heat production, by an impairment of their respiratory capacity.

The singular but noteworthy fact, observed under the microscope on the frog's tongue and elsewhere, that kairin, thallin, and also hydrochinon change the color preferably of venous blood, seems to point to a peculiar affinity of these substances for such blood, and it is not at all unlikely that the presence of carbonic dioxide in venous blood is the cause of its chemical decomposition underlying the appearance of this phenomenon. The peculiar coloring principle thus set free diffuses itself through the walls of the veins into the neighboring tissues.

When we now compare the action of hydrochinon upon the heart and the blood vessels of the frog and terrapin, with that of kairin and thallin, the result shows that hydrochinon affects the ventricle of the heart still more favorably than thallin; the auricles, however, are as promptly paralyzed by hydrochinon as they are by thallin, and even kairin. All three largely dilate the veins, for which they show a decided preference, and they also dilate the capillaries and arterioles; the dilatation of the latter, however, is either preceded or followed by an abnormal contraction, especially noticeable when the drug was injected hypodermatically. On hypodermatic injection of all three of the drugs, slight muscular spasm may be seen on the frog's tongue.

The action of hydrochinon, then, being similar to that of kairin and thallin so far as the heart and blood-vessels are concerned, the explanation of its action must, in like manner, be similar. The peculiar affinity of kairin, thallin, and hydrochinon for veins and venous blood cannot be explained by these experiments.

Resorcin.—A consideration of the results of the experiments leads to the conclusion that resorcin reduces the temperature by increasing heat radiation by the dilatation it produces in the capillaries and veins, especially the latter. The same quite remarkable preference for the venous side of the heart and vascular system is shown by resorcin in nearly the same degree as by thallin and hydrochinon. Resorcin paralysis the auricles in doses which seem to improve rather than impair the contracting power of the ventricle, and it largely dilates the veins, while the arterioles are affected but very slightly.

As is the case with kairin, thallin, and hydrochinon, resorcin reduces the rate of beat of the heart probably by a stimulating influence on the terminal filaments of the pneumogastric, and dilates the vessels through a similar influence on the ganglia of the vasodilators. The tonic effect which it has upon the ventricle is most probably due to its direct action upon the muscular substance of the heart. We have, so far, no explanation of the difference in the action of these drugs upon the two sides of the heart and vascular system. Nevertheless, the fact remains that all of the drugs so far considered possess this property nearly to the same extent. The only difference regarding their influence upon the heart lies in the ventricle. Kairin and thallin, in small doses, exercise but a *temporary* tonic influence over its contraction; hydrochinon and resorcin a more permanent one. They all quickly paralyse the auricles and lower the tone of the walls of the veins. The natural consequence is that a much greater quantity of blood will be contained in the veins than in the arteries, and its passage from the veins back into the ventricle is greatly impeded, owing to the paralyzed condition of the auricles. Collapse, therefore, ensues, not so much from failure of the action of the ventricle, as from the danger of *bleeding the animal to death into its own veins*, to use the words of Ludwig.

Antipyrin.—Antipyrin, in very small doses, injected into the lymph sac of the frog very slightly contracts the arteries, but dilates the capillaries and veins; in large doses, applied directly to the surface of the tongue, it gives rise to extensive dilatation in the veins and also the capillaries; a 1 per cent solution of it applied to the tongue of the frog will, after a short time, cause coagulation in all the superficial blood vessels. The manner in which antipyrin reduces temperature is purely by increasing heat radiation, owing to its extensively dilating the veins and capillaries; but what stamps it is an excellent antipyretic is that, besides dilating the veins, it also has a tonic influence on the heart and slightly increases arterial pressure, or at any rate does not cause a diminution of the same. It has, moreover, no injurious influence on the blood or the muscular tissues, and strengthens the auricles.

The objection to the employment of kairin and thallin as antipyretics is from the fact that they cause heart paralysis, especially affecting the auricles, in doses only slightly larger than are sufficient to produce a lowering of the temperature. But this objection becomes an absolute danger when we take into account the destructive influence upon the blood corpuscles and tissues generally.

Hydrochinon and resorcin, although not exerting the same weakening and directly paralyzing influence upon the ventricle of the heart which is peculiar to kairin and thallin, both paralyze the venous side of the heart, viz., the auricles, and greatly lower the tone of the walls of the veins. The extra amount of blood, therefore, which is driven into the veins through the increased action of the ventricle, is only with great difficulty returned to the ventricle, and here the danger is not so much from failure in the power of the ventricle as in the case of kairin and thallin, as from the danger of *bleeding the animal to death into its own veins*. The intense visceral and especially pulmonary congestion found on post-mortem, by Dujardin Beaumetz, and others, in animals killed by resorcin, seems to confirm this view of the matter.

Antipyrin, though largely dilating the veins, increases the power of contraction of both auricles and ventricle, and has no injurious influence upon the blood nor the muscular tissues, and therefore possesses, indeed, all the good qualities of a perfect antipyretic.—*American Journal of the Medical Sciences*, April, 1886.

Successful Splenectomy.—At the meeting of the Royal Medical and Chirurgical Society, on April 13, a paper by Mr. Knowsley Thornton was read, which was of remarkable interest, as embodying an account of the first successful case out of twelve operations for the complete removal of the spleen, which have been performed in England. The operation was performed almost exactly two years ago, on April 22nd, 1884, for the relief of a painful and rapidly growing splenic tumor, in a girl of 19. It proved to be one of the multilocular cysts, which are very rarely found in the spleen, and which had reached a dangerous stage; for the walls of the cyst had in one part become so thin, as to be quite transparent, and rupture might have followed any trifling accident. The specimen was shown to the Pathological Society, soon after removal. No traces of any hydatid origin could be discovered. The patient was anæmic, but the increase in the proportion of colorless corpuscles was not great, and there was no enlargement of the thyroid or other glands. The operation was strictly aseptic. There was a speedy recovery, interrupted by a relapse in the third week, with some fever and phlebitis; but, in seven or eight weeks, good health was re-established, and what is very important to notice, has been continued up to the present time; so that the physiologist has a rare opportunity of studying the working of the human economy, when deprived of one of its large visceral organs, whose functions, in spite of much study, remain somewhat enigmatical. Mr Thornton was able to give the very satisfactory report of his patient, that, after recovery from the immediate effects of the operation, she had spent nearly two years in comfort, and, apparently, normal health; into any more minute physiological points he had had no opportunity of entering. In the very interesting tables of previous operations, which he presented along with his paper, there were thirteen for simple hypertrophy, of which nine recovered. The first splenectomy in England, that by Sir Spencer Wells, in 1865, was for simple hypertrophy; but the patient died in a week, with a large thrombus in the heart. M. Péan was quite successful in 1867, in the removal of a spleen containing a very large cyst, which held more than five pints of viscid fluid. That was the first success since a rather doubtful case by Ferrerius, in 1711, and by Zaccharelli, in 1540. In the many cases, now reaching a total of about twenty, in which the operation has been recorded, as having been resorted to in cases of undoubted leukæmia or leucocythæmia, it has invariably been fatal; and Mr Thornton was no less emphatic than other authorities, in its condemnation, under such circumstances; and, though these, unfortunately, are by far the largest number of cases in which great splenic enlargement is associated with fatal disease, yet a small residuum remains of cases of great pain, such as sometimes accompanies wandering spleens, and sometimes of great danger, as in cystic disease, in which the advances of abdominal surgery offer us some hopes of permanent relief.—*British Medical Journal*, April 17, 1886.

INTRAVENOUS SALINE INJECTION IN POST PARTUM HÆMORRHAGE.—The value of intravenous saline injection in metrorrhagia is warmly advocated by DR. F. WEBER in the *St. Petersburger medicinische Wochenschrift*. Its superiority over transfusion of blood, human or animal, consists partly in the simplicity of the apparatus required. All that is needed is an Esmarch's jar, with a glass reservoir, a canula, and some India rubber tubing. The operation is as follows. Five litres of a 6 per cent. solution of common salt is prepared with distilled water of the temperature of the body. If the veins be so collapsed as to be invisible through the skin after ligation of the upper arm, a vein is exposed, and two ligatures passed under the free portion; the distal end is tied, a longitudinal incision is made in the vein, and a glass canula introduced, filled with saline solution, which is then fastened by means of the second ligature. This, and the pressure of the finger on the vessel, prevent the air from entering the veins. The canula is then connected, by tubing, with the jar containing the whole quantity of the solution. Directly the finger is removed, the injection begins. No ill effects are seen. Dr Weber relates an instance in which this method was most valuable. He was called by a midwife to a married woman, aged 21, who was seized with *post partum* hæmorrhage fifteen minutes after the birth of a putrid child. Dr Weber arrived at 10.30 P.M., an hour after the hæmorrhage had commenced. He found the uterus atonic, reaching to the umbilicus. Massage, hot injections, and hypodermic injections of camphor and ether, were used, with some effect. The hæmorrhage returning, he was called at 3 A.M., and after hot douches and ice-tampons, it again decreased; but cerebral anæmia appearing to an alarming extent, and the pulse being imperceptible, hot compresses were placed on the head, the lower extremities bandaged, and hypodermic injections administered every quarter of an hour. These proving unavailing, it was decided to try an intravenous saline injection. This was successfully administered; and when 500 grammes had been given, hæmorrhage ceased, and the patient who had been conscious the whole time, experienced great relief. The pulse, too, became distinct. On 1,000 grammes being injected, the patient complained of palpitation, and the jar was lowered in order to lessen the pressure on the circulation. When 1,500 grammes had been injected, the pulse was perfectly good, and the cerebral and hæmorrhage symptoms disappeared. The patient felt completely invigorated, and took nourishment without vomiting. She continued to do well, and made an excellent recovery.—*British Medical Journal*, May 1, 1886.

THE HAIR ROOTS AS INDICATORS OF BODILY OR MENTAL DISEASE.—DR. J. POHL-PINCUS, of Berlin, has recently in a *brochure* entitled "Polarised Light as a means of recognising Irritable Conditions of the Nerves of the Scalp," announced that by an examination of the hair roots by polarised light peculiar changes may be observed whenever the patient suffers from physical irritation or mental excitement. This statement is the result of investigations which have now been going on for twenty-five years, and the later observations in the course of the research have uniformly confirmed those made earlier. The hair bulbs are divided into three groups, as follows. Group A. If, in healthy conditions of the body and mind, the hairs that fall out daily are examined microscopically by polarized light, the enlarged bulbous end of the root will show a white contour, and a yellowish or brownish red centre Group B In all irritable conditions of any organ, also in emotional disturbances of moderate grade, without any apparent bodily disease, the bulbous end of the hair root increases in length and breadth (in proportion to the irritation), the central part appears under polarized light of a violet, blue, or bluish green color, separated from the white contour by bands of yellow and red Group C In higher grades of bodily disease or mental disturbance, the bulb becomes still larger, and the bluish centre changes to green, yellow, or orange A few hairs of the B and C types are found in normal conditions, especially in those more advanced in life Dr Pincus gives thirty one cases showing the effects of painful disease, but more especially of depressing emotions, upon the appearance of the hair root The conclusion to be derived from these researches is that bodily disease or mental excitement causes circulatory disturbances, and in consequence a change in the normal nutrition and pigmentation of the hair This is only in accordance with previous observation, and the chief merit of Dr Pincus's plan lies in his obtaining a means by which very slight and temporary changes in tissue growth can be detected and approximately measured —*Lancet,* May 1, 1886

Urethan —MM Mairet and Combemale have addressed the following communication to the Academy of Sciences "We have administered urethan 300 times, to thirty-seven insane patients, with whose form of insanity we were acquainted The doses varied from ½ gramme to 5 grammes, given in twenty-four hours When we administered urethan to insane patients, with whose symptoms and condition we were not thoroughly acquainted, it was given to them several times The mental affections of the patients may be classed as follows mania, 13, lypemania, 2, imaginary persecution, with sensorial faculties perverted, 3, insanity, consecutive to mania or lypemania, 9, insanity, consecutive to atheromasia, 3, paralytic madness, 7 In paralytic insanity, and insanity from atheromasia, strong doses of urethan did not have any hypnotic effect In the other forms enumerated, the effect varied according to the excited state of the patient, when this is very intense, the drug does not have any hypnotic effect, but appears to increase the excitement In less excited conditions, urethan produces sleep, which is calm, regular, and free from nightmares, the patient wakes up easily from a slight noise, or any other disturbing influence, but quickly falls asleep again Sleep from urethan generally lasts from five to seven hours, and is not followed by any disagreeable sensation Nutrition does not appear to be affected by urethan, even though it be given during fifteen days From 2 to 5 grammes produce sleep, but not smaller doses, if 5 grammes be given as a first dose, and fail, it should not be continued Its action is generally quick, some times two or three hours elapse before sleep results Its action is not lasting, after two or three days, or six or seven days, according to the patient, it fails to produce sleep, its use must then be discontinued during some days The earlier and the sounder the sleep resulting from its influence, the sooner is that influence exhausted " MM Mairet and Combemale's physiological researches on the action of urethan, published in the *Comptes Rendus de la Societe de Biologie,* March 20, 1886, indicate that this substance acts directly on the nervous system —*British Medical Journal,* May 1, 1886

Permanganate of Potash in Amenorrhœa — Dr Lee O Rogers, of San Francisco, reports the following case in corroboration of the article of Dr Billington in the *Medical Record* of March 6 "Miss F, aged 19, was sent to me for advice, and gave the following history She leads an active life when at home, spending much time in the open air In July, 1884, she came to a town adjacent to this city on a visit to friends She began shortly after to grow 'stout,' her abdomen particularly becoming prominent Her menses disappeared entirely after the period in July, previous to which she had always been perfectly regular In March, 1885, she was sent to me by her hostess, who thought her pregnant, for the purpose of being kept in the city and confined The girl seemed to be remarkably healthy and was very 'fat,' and she proved, upon physical examination, to be a virgin I immediately put her upon potassium permanganate, a 2 grain compressed tablet, four times a day, each tablet to be followed immediately by a large gobletful of water Much nausea and some vomiting occurred during the administration of the medicine, but I attributed this to the fact that I gave the tablets on an empty stomach, as I accepted Bartholow's theory of the action of the drug On the fourth day of the administration of the permanganate the menses appeared and lasted four days, after which the patient was sent to her home She was instructed to inform me if her menses failed to appear on time after her return home, but I have not heard from her " —*Medical Record,* April 17, 1886

Healing by First Intention after Operation for Fistula —Dr Ruidnovski, having found that after operations for anal fistula in rural districts where there was no hospital accommodation, and where the hygienic conditions were bad, it is often difficult to get the wounds to heal by second intention, determined to make an attempt to obtain union by first intention by means of sutures A boy of 14 with an anal fistula was operated upon in this manner, the sinus was found to be not single, but complicated with two lateral sinuses After the incision had been made into the gut, the soft tissue between the sinuses and the granulations were all scraped away with a Bruns sharp spoon, the surfaces of the wound being brought together by a deep and a superficial row of sutures Opium was given, and in a week's time the dressings were removed and the wound was found to have healed perfectly by first intention —*Lancet,* April 17, 1886

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the under signed When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY, MAY 22, 1886

ANTIPYRIN IN INFANTILE THERAPEUTICS

We have recently received from DR MONCORVO, the well known Brazilian clinician, a copy of his latest brochure, "De L'Antipyrine dans la Thérapeutique Infantile," from the press of O Berthier, of Paris Dr Moncorvo has already contributed several valuable papers on the action of the new antiperiodics and antipyretics, the most notable being one "De la Coqueluche et de son Traitement par la Résorcine" He is known as a most careful observer and a correct interpreter of facts, and whatever comes from his pen may be received as entitled to the highest consideration

The work before us is a well printed pamphlet of 156 octavo pages, divided into four chapters, the first chapter being chiefly historical Dr Moncorvo has used antipyrin in bronchitis, broncho-pneumonia, tuberculosis, acute impaludism, in rheumatic fever, and in grave cases of fever of suppuration The cases in which it has been used number more than one hundred In the first case recorded, one of acute impaludism with acute bronchitis, a child only five months old, who easily bore a dose of 5 grms and a half of antipyrin in five days The rectal temperature, which for the first four days had been between 39 5 C and 40 6 in spite of the use of sulphate of quinine, commenced to fall almost immediately after the administration of antipyrin, and continued to fall for four days On the first day it fell 2 4 C in an hour and a half, after a dose of 50 centig With the fall of the temperature the bronchial and pulmonary phenomena were rapidly ameliorated In another case of bronchitis with impaludism the rectal temperature fell 4 5 C within one hour and a half In a third case, that of a child two months old, the temperature fell 2 C in 30 minutes, and the child recovered, though it was suffering with whooping cough, broncho-pneumonia, and pernicious fever These are three cases from nine records They all show that young children easily bear the administration of antipyrin, and that large doses may be administered with comparative impunity, and Moncorvo declares that the action of antipyrin is much superior to that of quinine administered subcutaneously In some of the cases, in fact, quinine failed completely

Dr Moncorvo is enthusiastic over the action of antipyrin in cases of pulmonary tuberculosis The defervescence, sometimes very rapid, which follows the administration of this remedy, always causes a considerable calm The appetite returns, the insomnia and agitation, so frequent at night in the little patients, is followed by tranquil sleep, which in a great measure contributes to the improvement in the general state If it be true that the action of antipyrin is transitory, it at least possesses the very great advantage that it may be administered for a long time without fear that it will accumulate in the organism, and that it will have no serious effects on the digestive apparatus or the nervous system One very striking circumstance in connection with the use of antipyrin in these little patients, is the marked modification of the congestive pulmonary phenomena which so often accompany the evolution of the malady, and the frequency of this modification when the medicine is properly administered leaves scarcely a doubt as to the favorable action of antipyrin on the pulmonary circulation This view is supported by that of Cahn, that antipyrin acts in pneumonia not only as an antipyretic, but that it has a direct action on the pneumonic process Moncorvo states that even when so much as 2 grams of antipyrin was administered in twenty-four hours he has not seen the excessive sweats which have been mentioned, and that he has altogether dispensed with the use of agaricine, as devised by Norden, or of atropia, as proposed by von Hoffer He believes that his experience authorizes him to say that antipyrin administered to children in the course of the febrile manifestation of pulmonary on visceral tuberculosis acts admirably by causing a defervescence, which is maintained for several hours, and sometimes even for a whole day, without the production of any untoward result In some cases the defervescence is almost mathematical after the ingestion of a dose varying from 1 to 2 grams

Guttmann and others believe that antipyrin and kairin have no effect on intermittent fever, and the question as to their value in impaludism may be regarded as still *sub judice* The opinion of Moncorvo may be regarded as of exceptional value in this question, for there can be no question as to his facilities for observing malarial fevers in all forms and stages He says I have been forced by the evidence to regard antipyrin as of powerful utility when it is associated with various salts of quinine I am fully in accord with Guttmann, Huchard and others when they say that antipyrin has no specific action on the germ producing paludal intoxication I consider the hypothesis raised by Laveran as entirely admissible that quinine cures malarial fever by acting directly on the microgerms existing in the blood Antipyrin may be regarded as having a parallel germicidal property, it cannot replace quinine, but it has the undeniable property of subtracting heat or of abating the high temperatures of grave paludal fevers, with a rapidity evidently superior to that of quinine, while by the free diaphoresis which it causes it opens a large portal for the elimination of the toxic agent Furthermore, by causing free defervescence, without compromising the forces of the organism already enfeebled, antipyrin creates a condition very favorable for the absorption of quinine The gravity of the case is not to be judged in all cases by the height of the temperature, since the value of this sign varies according to the nature of the fever, it may be admitted that the exaggerated combustion of which hyperthermia is the expression causes grave regressive disorders of the viscera in exposing the organism to a very great danger In a general way, then, and particularly in cases of children, it is always well to take into consideration the thermic element in the treatment of febrile affections The ideal of the therapeutics of malarial fever will be realized by an agent which will possess the property of rapidly lowering the temperature, while acting simultaneously on the germ producing the disease But while awaiting such an agent, he thinks, we cannot do better than to employ antipyrin and quinine successively

As regards the dose and methods of administration, Dr Moncorvo says that while our German *confreres* have given too large doses to adults, their experience has made many fearful of moderate doses for children When he first began to use it he gave doses of 20 or 25 centig, but gradually recognized that children could tolerate and needed larger doses, and that children are much more tolerant of the drug than adults Half an hour after the first dose of 25 or 50 centig or 1 gram had been given the temperature is taken in the hand, and the next dose is graduated according to the fall noted In another half hour the temperature is again taken, and another dose given if the temperature be still high Generally in one or two hours the temperature falls one, two or three degrees, though he has not given more than 3 grams in this time He has had no cases of collapse from antipyrin, and the only inconvenience that he has noticed is the occasional vomiting, which he says is no more frequent in children after taking antipyrin than after the ingestion of other drugs It may be administered to children either by the mouth, rectum, or subcutaneously In the first instance it is invariably given in aqueous solution, aromatized with mint or anise If after taking it some time the stomach of the child rejects it, the syrup of currant or gooseberry will usually mask the taste completely Its great solubility precludes the necessity for a large volume of the vehicle When it is thought proper to give it by rectal injection it is well to precede this by an injection of a 2 or 5 per cent solution of muriate of cocaine, and then give the antipyrin within four or five minutes The experience of Huchard that when given hypodermatically the action on the temperature is less marked is not confirmed by Moncorvo's experience, nor is there, according to him, any objection whatever to giving the drug in this manner, and he has so given it to the youngest children The conclusions which he draws in regard to the drug are as follows

1 On account of its remarkable activity, and its almost mathematical regularity of action, as well as on account of its absolute harmlessness in moderate doses, antipyrin is the most powerful and the least dangerous of the antipyretic agents employed to day in infantile therapeutics 2 When given in the course of specific or non specific inflammatory affections of the respiratory apparatus the defervescence is, almost without exception, very rapid, more or less lasting, and causes at the same time an amelioration of the general state In tuberculous subjects the continuous administration of this drug often causes a very favorable modification of general nutrition, on account of a reestablishment of appetite, the disappearance of insomnia, and at the same time a notable amelioration of the cough 3 In the treatment of acute impaludism, antipyrin is very efficacious, contrary to what has been affirmed by almost all observers Without any demonstrated specific action on the germs of malarial intoxication, it answers in benign and transient cases by its antithermic action and frank elimination through the skin In severe cases it is of great service by facilitating a more prompt and more efficacious absorption of salts of quinine It is thus a powerful adjuvant to quinine by preventing intermittences, so that the maximum

temperatures are lower 4 In the treatment of some cases of acute rheumatism, and in whatever concerns the febrile element in these cases, its action appears to be very analagous to that of salicylate of soda 5 In several cases of surgical affections accompanied by a commencing septicæmia, antipyrin caused remarkable modifications of general nutrition by the continued subtraction of heat, which was very high in young children 6 Defervescence caused by the drug is produced with mathematical regularity in children of every age, and varies from six to twenty-four hours The succeeding ascent of temperature takes place in an insensible manner, contrary to what is seen when carbolic acid, kairin, and thallin are used 7 It has already been said that no serious accidents have been caused by the drug in Moncorvo's hands 8 Antipyrin has a manifest action on the circulatory apparatus, slowing the heart and the pulse Its influence on vascular tension has not been determined The diminution in the frequency of the pulse and the lowering of the temperature are rarely ever proportional 9 It has scarcely any appreciable modifying action on respiration 10 The urinary secretion is somewhat diminished, but this is usually proportional to the abundance of the sweat Some examinations have shown a decrease in the amount of urea It does not cause albuminuria, and has been known to check it

A DOCTOR'S EXPERIENCES IN THREE CONTINENTS

Such is the title of a most interesting and charmingly egotistic book of some six hundred pages by Dr Edward Warren-Bey It is in a series of letters to Dr John Morris, of Baltimore, and being in the form of letters to an intimate friend the frequent use of the first personal pronoun, so far from being at all disagreeable, adds to the interest of the volume The letters are not in the form of a diary, but facts, dates and comments are given in a manner which is at the same time connected and disconnected The personal memoirs of distinguished men are always of interest, particularly when well written, and it is apparent from these letters that Dr Warren's fluency of speech is not greater than his readiness with his pen

A man who took an active part in the surgery of the late war, who has been an active practitioner in two sections of this country, chief surgeon of the Egyptian War Department, and for some years an active practitioner in Paris, the friend of the much lamented Otis and Gross, of Charcot, Zeb Vance, Ismail Pasha, Landolt, Abbate-Bey, General Mott, Alfred Swaine Taylor, Thomas Stevenson, and Sir James Paget, could but have an interesting history Very much of this written history is a record of trials and sorrows, some of which must come to everyone, and of difficulties overcome Perhaps one of the most remarkable facts in the life of Dr Warren is that he did not study the profession of his first choice —law— but was induced by his father to study medicine This is chiefly remarkable on account of his eminently successful career as a physician

Taken altogether, we do not know of any book the reading of which will make an evening pass more quickly or more pleasantly, and the chief regret on parting with it is that it is not longer For those who are inclined to believe that there is nothing good in America, who buy their watches in Geneva, their umbrellas in Paris, and their ill-fitting clothes in London, we particularly recommend the following, from the last letter —"Before bidding you adieu, I must say this much The longer I have resided abroad, the more intensely American have I become, and the greater has grown my love and appreciation of my native land Other lands may possess their treasures of art, their marvels of luxury, their triumphs of architecture, and all that is calculated to captivate the imagination and ravish the senses, but for the truest solution of the problem of human existence, the grandest victories of human skill over the laws of nature, the most fortuitous combination of those conditions which constitute society, and the perfection of a governmental system—that which governs the least and protects the most—America is the land preeminently blessed of Heaven Call me an enthusiast if you will, but for me her skies are the brightest, her mountains the grandest, her rivers the broadest, her fields the greenest, her women the loveliest, her men the noblest, her history the proudest, and all that relates to her the best of all the world besides Elsewhere her sons may be content to linger for a season, but to them she is the only land in which they can ever realize the idea of *home*, or feel that they are aught else than aliens and sojourners"

A RATIONAL CONCLUSION

The editor of the *Medical Record*, of May 15, in speaking of the organization of the Executive Committee of the Ninth International Medical Congress says "But the organization and management are definitely settled, and we have no desire now to hamper its future work We do not think that hereafter the International Medical Congress will meet with any aggressive opposition or criticism Its managers have chosen their course, and we shall be glad, for the sake of our country's reputation, to see them successful in it" In another paragraph, the same editor says "Still, we say to foreign delegates, You will meet a large number of able and hospitable gentlemen at the Congress, you will be made warmly welcome by all Americans, and you will hear no quarrelling while you are in the States"

Kindly sentiments and assurances of future peace, even though late in finding expression, are none the less welcome And if the Executive Committee of the Congress is to be permitted to carry forward its responsible work without further opposition, "our country's reputation" will be abundantly vindicated by the result

A NEW COLLEGE OF PHARMACY

Some two months ago a number of prominent pharmacists, who were active members of the Chicago College of Pharmacy, withdrew from this organization, and five of them have founded a new school, known as the Illinois College of Pharmacy The government of the Chicago College of Pharmacy is in the hands of a College Association, composed almost entirely of the younger alumni, who sometimes have been capable of committing very strange blunders, such as electing young and inexperienced graduates to the Board of Trustees of the college After trying in vain to give to the college a more stable and rational organization, the oldest and best known of the trustees withdrew, leaving the school entirely in the hands of the younger element

The Illinois College of Pharmacy is governed by a board of five trustees Wm Bodemann, D R Dyche, H S Maynard, T H Patterson and E H Sargent Their names are a sufficient guaranty of stability, as all are well known throughout the West

Professors Oscar Oldberg and J H Long withdrew from the faculty of the old school and have been elected to the Chairs of Pharmacy and Chemistry in the new The new school will be the Pharmaceutical Department of the Northwestern University

IN MEMORY OF PROFESSOR AUSTIN FLINT —During the session of the Executive Committee of the Ninth International Medical Congress, May 3, 1886, appropriate resolutions were unanimously adopted expressing their high appreciation of his character and noble life work, and their deep regret for the loss of the late President of the Congress

A just tribute was also paid to his memory by the President of the American Medical Association in his Annual Address, on the first day of the meeting of that body in St Louis, May 4, 1886, and another was contained in the report of the chairman of the Standing Committee on Necrology, which was called for on the last day of the session and referred for publication

PRIZES OF THE AMERICAN MEDICAL ASSOCIATION —We have received two anonymous letters asking for information regarding the prizes of the Association and the regulations governing their award We think the only action taken by the Association concerning prizes during the last two years can be found in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION Volume V, page 531, number for November 7, 1885, and relates to prizes of honor only

NOT VERY ACCURATE —The *Medical News* of Philadelphia, in endeavoring to give the "officers of the International Medical Congress," in its issue for May 15 inst, commits at least *four* errors of commission and *three* of omission—enough certainly for one half column

SOCIETY PROCEEDINGS

AMERICAN CLIMATOLOGICAL ASSOCIATION

Third Annual Session held at the Hall of the College of Physicians, Philadelphia, May 10 and 11, 1886

MONDAY, MAY 10, FIRST DAY

MORNING SESSION

The meeting was called to order by THE PRESIDENT, WILLIAM PEPPER, M D, LL D, of Philadelphia

THE PRESIDENT opened the session with an address on

THE CAUSES AND DISTRIBUTION OF CONSUMPTION IN PENNSYLVANIA,

being a preliminary report of investigation still being prosecuted

DR A L LOOMIS, of New York read a paper on

THE EFFECT OF HIGH ALTITUDES ON CARDIAC DISEASE

In 1880, while in the Adirondacks, the author was requested to see a gentleman who was thought to be dying The patient aged 40 years, was found gasping for breath, cyanosed, with no apparent radial pulse, and bathed with profuse perspiration Under the hypodermic use of digitalis, morphia and brandy he improved The following day it was learned that he had left New York apparently well When he reached an elevation of one thousand feet the breathing became difficult, and as a higher altitude was reached, the difficult was increased and was accompanied by cardiac palpitation and a sense of oppression in the epigastrium When he reached St Regis lake at an elevation of two thousand feet he appeared to be dying Physical examination showed well marked dilatation of both ventricles, with a loud systolic murmur heard over the præcordium and transmitted a little to the left At the end of three days he returned to New York As he reached lower levels the difficulty of breathing diminished and when he reached New York he could walk on a level The irregular heart action, however, continued, and the feet soon became œdematous and he died six weeks later with general anasarca and heart insufficiency No autopsy was made The patient had never presented any evidence of cardiac disease prior to his trip to the mountains

The speaker had seen in all twenty-six similar cases, the histories of five of which were given, one of which follows

Mrs S , aged 43, had mitral insufficiency for over ten years, but never exhibited any cardiac symptoms She went to Colorado When she reached an elevation of four thousand feet she was suddenly seized with extreme dyspnœa and hæmorrhage There was palpitation of the heart and constriction of the chest The following day she started on her return As she reached a lower level she improved Physical examination revealed extreme dilatation of both ventricles, complete cardiac diastolism, indistinct apex beat, crepitation over the base of both lungs with feeble or absent respiratory murmur The patient died four weeks after her return The autopsy showed both ventricles much dilated, old thickening and insufficiency of the mitral valve, some interstitial myocarditis and degeneration of the muscular fibre of the heart walls The right lung was the seat of pneumonia and old infarctions All the other viscera were in a state of extreme venous congestion

Dr Loomis then went on to say that in all the cases coming under his observation, the ventricular dilatation was unquestionably the cause of the sudden development of distressing symptoms, and that the commencement of the fatal issue seemed to be directly due to the effects on the cardiac circulation of a change from a lower to a higher altitude

Two important factors which lead to permanent cardiac insufficiency, are, first, the condition of pul monary distension consequent upon rarefaction of the atmosphere, and second the resultant condition of the circulating blood

If the explanation of the effects of high altitude upon the cardiac circulation be accepted, the risks which one with even slight cardiac insufficiency runs by passing from a lower to a higher altitude is certainly very great, and if the insufficiency is extensive, such changes become immediately dangerous It must be remembered that cardiac insufficiency may exist in those who give no evidence of it

Clinically the speaker relied upon what is termed the muscular element of the first sound of the heart, in determining the condition of the muscle walls Clinical experience had also convinced him that it was unsafe for one to make such change, whose cardiac rhythm was greatly disturbed by nervous excitement, or by rapidly ascending a long flight of stairs

Dr **Frank Donaldson**, of Baltimore, read a paper, entitled

A PRELIMINARY ACCOUNT IN REGARD TO CIRCULATORY AND RESPIRATORY CHANGES OBSERVED IN ANIMALS PLACED IN THE PNEUMATIC CABINET

The experiments had been performed on rabbits which had been chloralized It was found that

1 When the animal is breathing air from outside of the cabinet, rarefaction of air within the cabinet causes a marked fall of general arterial pressure, but has no influence on the pulse rate The fall of pressure lasts only a short time (ten or twenty seconds) and is often followed by a temporary rise above the normal

2 This fall of systemic arterial pressure depends on two factors,—greater flow of blood to the skin when the air around the animal is rarefied and greater accumulation of blood in the lungs when they are distended

3 Of these two factors, accumulation of blood in the lungs is the more effective, for if the animal breathes air from the cabinet, and not from the outside, rarefaction of the air within the cabinet (in this case, accompanied by no special expansion of the thorax) has but a trivial effect in lowering arterial pressure

4 When the animal is breathing external air, rarefaction of the air within the cabinet usually has no effect upon the respiratory rate, nor upon the extent of individual respiratory acts, unless the fall of blood pressure be considerable If it be considerable, symptoms of anæmia of the medulla oblongata show themselves In some cases, there is more forcible dyspnœic breathing and, in some dyspnœic convulsions similar to those which occur when an animal is bled to death, and due to the same cause, viz , deficient blood flowing through the respiratory centre

5 The rapid recovery of general arterial pressure while the animal is still in a rarefied atmosphere, but breathing external air, is probably due to excitation of the vaso-motor centre, which as is well known is excited whenever the blood power is defective

6 The brain enclosed in a rigid box which is practically unaffected by variations in the atmos pheric pressure, has its circulation more disturbed in the pneumatic cabinet than any other organ with the exception of the lungs

7 Compression of the air within the cabinet while the lungs are in communication with the external air, causes a considerable transient rise of blood pressure This is probably mainly due to the forcing of the blood from the cutaneous vessels, but there has not yet been sufficient time to thoroughly investigate this point

8 Compression of air within the cabinet while the lungs are in communication with the external air, slows the pulse as the arterial pressure rises This is probably due to the excitation of the cardio-inhibitory centre by increased intra-cranial blood pressure Further experiments are, however necessary before this can be positively stated

9 In certain cases, when the air within the cabinet is rarefied and the animal is breathing external air, the respiratory movements cease altogether for several seconds As to the cause of this physiological apnœa, we are not yet ready to form an opinion It may be due to extra accumulation of air in the alveoli of the lung, or to distension of the lungs, exciting those fibres of the pneumogastric which tend to check inspiration

The President had seen not only in the class of cases described by Dr Loomis, but also in cases of cardiac disease originating in high altitudes, the grave consequences which followed A small amount of organic lesion under such circumstances produces very serious symptoms, even preventing the patient from assuming the erect posture

Dr E D Hudson, of New York, thought that heart disease was not prevalent in high altitudes, and that the tonicity of the heart was really increased so that such persons were better able to withstand fatigue than those of a lower level The recognition of the importance of the point to which Dr Loomis has called attention would no doubt result in the saving of many lives Still, when necessary, we should not be deterred from sending patients to high altitudes, taking care that sufficient time is spent in the transition so that the circulation may gradually adapt itself to the change in altitude

Dr Loomis said that there was no danger to a good heart whose nervous condition was normal If such individuals suffer, it is only temporarily After fifty years of age, the condition of the heart walls is uncertain This high altitude is only one of the causes of over-distention of the cardiac cavities He did not believe that it was safe for any man with arterial degeneration or dilatation of the vertricles to take the chances of going into a high altitude or taxing his his heart beyond a certain limit

EVENING SESSION

Dr Herbert F Williams, of New York, read

A CLINICAL REPORT OF CASES TREATED BY PNEUMATIC DIFFERENTIATION

with the assistance of Mr Ketchum, of New York, the inventor of the apparatus, a demonstration of the working of the pneumatic cabinet was given The speaker then reported forty-five cases in addition to those previously reported, in which he had used the cabinet as a method of treatment Sixteen cases were reported in detail

Dr Vincent Y Bowditch, of Boston, reported a

TEN MONTHS' EXPERIENCE WITH PNEUMATIC DIFFERENTIATION

The speaker endeavored to give the clinical results of the treatment in thirty-seven cases since June 30, 1885 Pulmonary phthisis, in its tubercular and non-tubercular forms, bronchitis in its acute and chronic forms, with and without emphysema or asthma, and retraction of the lung from long standing pleuritic effusions, are the diseases which he had treated in the pneumatic cabinet His experience was such that although he had been unable to accomplish thus far such brilliant results as some others had claimed, yet he felt convinced of the very marked beneficial effect of the cabinet in many cases where other means had failed to give relief, and of its curative power in one case of incipient tubercular trouble, and he looked forward with hope to what may be done in the future with this new method of treatment The speaker said his chief desire was that the profession should investigate the matter thoroughly and with fairness, and publish their results, for by this means only can a just estimate of the merits of the treatment be established He felt that it should be entrusted only to a physician's care or to that of a reliable assistant, and that if placed in hospitals the most accurate methods of recording cases should be insisted upon before allowing the cabinets to be used Carelessness of investigation in the present stage of its existence might do infinite harm to a method which may prove, when properly used, of infinite service

The following table was given showing the percentage of cases in which benefit had been accomplished

19+ per cent of all the cases treated received no benefit

23+ per cent of all the cases treated received very slight, moderate or temporary benefit

46+ per cent of all the cases treated received marked benefit (for varying periods)

7+ per cent of all the cases treated received remarkable benefit

3+ per cent (one case of incipient tuberculosis) was cured

Dr I H Platt, of Brooklyn, read a paper on

THE PHYSICS AND PHYSIOLOGICAL ACTION OF PNEUMATIC DIFFERENTIATION

Pneumatic differentiation is the process by which the air surrounding the body and that entering the lungs is rendered of different densities There are three forms, which for convenience may be designated positive, negative and alternative He proposed to consider chiefly positive differentiation, which is the form in which the air surrounding the body is of less pressure than that entering the lungs The apparatus introduced to the profession by Dr Williams, and known as the pneumatic cabinet, is the most convenient for applying this treatment As the difference in pressure used is very slight, seldom exceeding that indicated by a fall of one inch of the mercurial column, the absolute change in air pressure is an insignificant factor, the essential element being the differentiation

The effect of reduced air pressure upon the periphery of the body is to increase the expansion of the thorax in inspiration and to diminish its contraction in expiration, consequently to increase the amount of residual air By the increased pressure in the lungs it will tend to exsanguinate them and to raise the arterial blood pressure in the general circulation

Two of the claims put forward by Dr Williams and Mr Ketchum he believed to be unfounded The first is that the effect of removing a slight degree of pressure from the periphery of the body is radically different from that of increasing the pressure of the air entering the lungs, the former acting as a *vis a fronte*, the latter as a *vis a tergo* One of the most elementary principles of physics teaches that suction is not a force operating from in front, but is merely removing the pressure from one side of a body and allowing the undiminished pressure to act upon the other side It makes no difference whether pressure is taken from the outside of the thorax or added to the inside, in either case it is the unbalanced pressure which causes the increased expansion The other proposition which he combats is that the spray or vapor used in conjunction with the differential process can be carried further into the air passages or more thoroughly condensed upon them than a spray or vapor could be under normal conditions They cannot be carried so far, for the reason the residual air is increased, and consequently the inspired air which carries the vapor or spray cannot penetrate so far It is claimed that the vapor of medicinal substances is condensed in the lungs during the differential process by the compression consequent upon the commencement of the expiratory act This is impossible, first, because compression only acts to condense a saturated vapor, and the air passages cannot be saturated with the vapor of a medicinal substance, and secondly, because no greater compression is produced at the commencement of the expiration under the influence of differential pressure than under other circumstances Such compression as does occur is due to the resistance offered by friction of the bronchial tubes and by the narrow opening of the glottis, and it is impossible that these should be affected by the differential pressure

He believes that such benefit as results from the use of the cabinet is due mainly to the reduction of congestion in the lungs by the air pressure within them and by the increased expansion and movement of the lungs favoring their greater action and modifying their nutrition

---

Tuesday, May 11, Second Day

Morning Session

First Vice-President, Dr Frank Donaldson, of Baltimore, in the Chair

The report of the Committee on Health Resorts was received and ordered published in the Transactions

Dr Roland O Curtin, of Philadelphia, read a paper on

ROCKY MOUNTAIN FEVER

The speaker in the first place referred to a communication received from Dr D O Dougan, of Denver, Colorado, bearing upon this subject The experience of Dr Dougan had led him to regard all cases of mountain fever as belonging to one or another of the well known, already classified varieties The cases, however, present variations from the usual course of the fevers to which we would assign them Some of the cases are ephemeral in character and difficult of classification The fever especially designated by the name mountain fever presents many features of typhoid fever Some of the reasons for believing these cases to be an irregular or mild type of typhoid fever are that such cases are usually seen at the season of the year when typhoid fever is most prevalent, they occur most commonly under conditions favorable to the development of typhoid fever, not infrequently cases will present some characteristic feature of typhoid, leaving no doubt as to the diagnosis In the high altitudes where mountain fever is said to occur, a large proportion of the cases of undoubted typhoid pursue a remarkably mild course Dr Dougan concluded with a protest against admitting mountain fever as a specific disease, until its right to such a position had been proven by clinical and pathological researches

Dr Curtin had seen, in Wyoming Territory, four cases which had been diagnosed as mountain fever At some point in the disease, all these cases had diarrhœa, and in one it was continuous One of the patients died suddenly at the end of three weeks, but no autopsy was made, in one case there was a doubtful eruption, one of the cases had epistaxis in the beginning of the illness, tympanites was more or less marked in all cases Dr Curtin considered these cases to be typhoid or typho-malarial in character Sometimes the cases belonged, in all probability, to the class termed simple continued fever The diagnosis of mountain fever was doubtless, in large part, the result of incompetency on the part of the observers, and the use of the term is continued largely as a result of fashion

The opinion of other investigators was cited, all of whom expressed views similar to those given above

Dr C C Rice, of New York, read a paper entitled,

HOW THE THERAPEUTIC VALUE OF OUR MINERAL WATERS MAY BE INCREASED

The following conclusions were advanced

1 A physician should make an analysis of our mineral springs

2 The medicinal value of the waters should be tested by clinical investigation, and the conclusions published for the benefit of the profession

3 If the waters are found to present marked merit, the physician should interest himself in developing the springs, improving the baths, etc

4 Physicians, in sending patients to the springs, should be more careful to select the proper water, and should send with the patient the diagnosis and history of the condition for the benefit of the physician at the baths

5 The patient, while at the baths, should be under a more rigid medical discipline

6 The social life of our watering places should be reorganized

The following papers, describing the climate of various places were then read

The Climate of Mexico, by Dr Didama, of Syracuse, *The Southern Adirondacks*, by Edward T Bruen, M D, of Philadelphia, *The Climate of El Paso, Texas*, by Dr E W Schauffler, of Kansas City, *Southern Pine Park, a New Health Resort in North Carolina*, by Dr A N Bell

AFTERNOON SESSION

The following were elected

OFFICERS FOR THE ENSUING YEAR

President—Dr Frank Donaldson, Baltimore

First Vice-President—Dr V Y Bowditch, Boston

Second Vice-President—Dr Roland G Curtin, Philadelphia

Secretary and Treasurer—Dr J B Walker, Philadelphia

Additional Member of Council—Dr F C Shattuck, Boston

Elected to Membership—Dr F Donaldson, Jr, Baltimore, Dr G R Butler, Brooklyn, Dr W Matthews, U S A, and Dr J H Musser, Philadelphia

The following memorial was presented by DR J EWING MEARS, Secretary of a Special Committee of the American Surgical Association, appointed to consider the proposition with reference to the establishment of a

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS

WASHINGTON, D C, April 30, 1886

To the President of the American Climatological Association

In view of the fact that there are a number of special medical organizations now in existence in the United States, each having for its aim and attainment the advancement of the special department of medicine for which it was organized, and since the members of said special societies are of the representative men of the profession in America, many of whom are, at the same time, fellows or members of several of these special societies, which double membership, if it may be so expressed, necessitates them—if desirous of attending two or more of the meetings of these societies the same year—to make as many separate trips from home and often with much loss of time to themselves and inconvenience to their patients Therefore, it appears necessary that some arrangement should be made with the different societies as to a uniform time and place of holding their sessions, so that those members who wish to attend the meetings of more than one association may be enabled to do so without useless expenditure of money or unnecessary loss of time

An extended correspondence, together with personal conference with many of the most prominent fellows of this and other of the associations, has disclosed the fact that there is a decided and growing inclination to unite the various societies into a common whole, whereby it would become a general organization, representative of the various special departments of the profession in America

The plan proposed and which is offered for consideration is to unite the following named associations into a Congress based upon the outlines which are now to be explained American Surgical Association, American Ophthalmological Association, American Otological Association, American Neurological Association, American Laryngological Association, American Gynæcological Association, American Dermatological Association, American Climatological Association, and American Clinical and Pathological Association These associations to be united under the name and style of "The Congress of American Physicians and Surgeons"

The plan of organization hereby submitted, and subject to any alterations or amendments which may be deemed wise and proper, is that each society will preserve its own name, constitution and by laws, *elect its own officers and fellows, hold* its own sessions apart from the others at the time and place of meeting, publish its own transactions, and do all other acts of which, by virtue of its constitution and by-laws, it has the inherent right to do, thus preserving its own autonomy

The Congress to be composed of these special societies when in convention, and its meetings to be held annually in the city of Washington—the most appropriate place for the assembling of such an organization The constitution and by laws of the Congress to be formed by a committee composed of a like number chosen from each separate society The opening session of each annual meeting of the Congress to be devoted to such general business as may pertain to the interest of the association as a whole The Congress to be presided over by a President, elected annually, and who shall deliver the opening address upon the first day of the session The manner of choosing the President to be as follows By a nominating committee composed of one member elected from each special association, or otherwise, as may be determined upon by the special society itself, this committee nominating one or more candidates for the office of President, whose election is to be by ballot on the last day of the annual session, and in a convention of all the societies assembled The Presidents of the special societies to become *ex officio* Vice-Presidents of the Congress Membership in the Congress to be acquired only by virtue of fellowship in one or another of the special associations Other officers of the Congress to be elected or appointed as may hereafter be determined upon by the associations in convention

These are the outlines of a union proposed for the consideration of the members of this Association, which, if it should meet their approval, can be submitted to the action of the societies which have been mentioned It was suggested that the Chair appoint a committee of five to bring the subject before the next special Association, which meets this spring or coming summer, and which, in the event of a concurrence of opinion on the part of said society, shall act in concord with their committee appointed to confer with the other societies, in the order of their meetings This enlarged committee to report at a convention of all the societies, which shall be requested to hold their next annual meetings at the same dates in the month of June, 1888, in the city of Washington

To avoid any confusion as to the time of next meeting, each society (this year) could adjourn to meet in June, 1888, leaving the date to be fixed by the enlarged committee after their work of conference had been finished, it then being only necessary to apprise the Secretaries of the respective associa tions, who will give notice to the various fellows and members

This proposition is the result of calm consideration, and has been approvingly endorsed by quite a number of the representative gentlemen of the profession, both in and out of this special Association

The plan proposed is simply to unite into one great body the already existing special societies, and it is proposed from the honest conviction that such a union will prove of inestimable benefit to them individually and collectively

The special committee appointed by the American Surgical Association to consider the above memorial, reported that it viewed with great satisfaction the perfection of a plan through which the meetings of the associations above named in the city of Washington at the same time of the year, may be accomplished, and the meeting of all the associations in general assembly on such days as may be determined, for the purpose of delivering of addresses upon general subjects in medicine, such meetings to be held without any formal organization through which the associations meeting would sacrifice their autonomy

To accomplish these purposes, the committee offers the following resolution

Resolved, That a committee of five Fellows of this Association be appointed, which shall be authorized to confer with committees of other associations interested in the adoption of a plan of a convention as hereinbefore stated, and report upon the same at the next meeting for the action of the Association

The resolution was adopted, and the following committee was appointed in accordance therewith

C H Mastin, M D, Mobile, Chairman
C T Parkes, M D, Chicago
J Ford Thompson, M D, Washington
N Senn, M D, Milwaukee
J Ewing Mears, M D, Philadelphia, Sec'y

The proposition was approved, and it was decided to appoint a committee* to be announced later in the day

Dr J H Musser, of Philadelphia, made some

SUGGESTIONS REGARDING THE PREVENTION OF PHTHISIS IN MILL HANDS

He said that it was rather to prevent that state of the system which often leads to phthisis, that he desired to make some suggestions The suggestions more particularly referred to factory laborers He showed that states of ill health were common in this class of artisans, and asserted that it was very largely due to an inadequate supply of food, which was improperly selected and prepared, and to carelessness in attention to digestion This cause obtained more largely than bad hygienic surroundings or than the occupation itself If this be true, the remedy proposed was to have the plan of the Willimantic Cotton Company used by all mill proprietors That company has proved by experience and careful calculation that it pays them in quality and quantity of work done to supply milk to their boys and bouillon to their women twice daily, and that the health of the operatives is promoted and their lives prolonged thereby Dr Musser trusted that the members of the Society could influence proprietors to adopt this plan, and thereby close one of the avenues to disease and death

Dr C L Dana, of New York, read a paper entitled

A STATISTICAL INQUIRY REGARDING THE RELATION OF HIGH ALTITUDES TO NERVOUS DISEASES

The speaker presented the results of inquiries made at his request of twelve physicians living in Colorado Springs, regarding the effects of high climates on the nervous system in health and disease The majority thought that chorea in children was more frequent there than in lower altitudes, that the climate was bad for nervous women The high altitudes do not necessarily injure epileptics, and in anæmic cases might cause improvement Insomnia dependent upon anæmia and mal-nutrition was benefited and generally cured The climate has no specific influence for good upon diseases of the spinal cord, and if anything, the contrary The speaker was of the opinion that high altitudes had a tendency to excite lithæmia and anthritism with consequent irritating effects upon the nerve centres The best effects of the climate were seen in anæmic insomnia, neurasthenia and melancholia

The President announced as the committee to confer with the committees of other special societies with reference to the establishment of a "Congress of American Physicians and Surgeons," Dr A L Loomis, New York, Dr F Donaldson, Baltimore, Dr F C Shattuck, Boston, Dr E T Bruen, Philadelphia, and Dr W W Johnson, Washington

It was resolved to appoint a committee of three, with Dr C C Rice as chairman, to investigate *The Therapeutical Properties of the Different Mineral Springs*

After passing a vote of thanks to the College of Physicians for the use of their hall, the Society adjourned *sine die*

SUFFOLK DISTRICT MEDICAL SOCIETY

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE

Stated Meeting, April 14, 1886

F I Knight, M D, Chairman

Albert N Blodgett, M D, Secretary

Dr J W Farlow exhibited a girl aged 12 years, in whom was seen

A LARGE ARTERY PASSING IN A DIAGONAL DIRECTION ACROSS THE POSTERIOR WALL OF THE PHARYNX,

where its pulsations were plainly visible, and could be felt by the finger The vessel was of larger size than the radial artery in the same patient, and was covered only by the mucous membrane Dr Farlow described the condition of the parts in the following words

"The case is interesting on account of its extreme rarity, and because of its bearing on the surgery of the throat. It is a case in which we may see and feel a large pulsating artery on each side of the back of the pharynx, about a quarter of an inch inside of the posterior pillar of the fauces. In a service of several years in the throat-room of the Boston Dispensary, I have never met a case before. Dr. Knight remembers to have seen one similar case. During the week following the appearance of the present patient, another case was observed at the same institution, but in the second case the vessel was seen and felt on the right side only. It occupied, however, the same situation. Dr. Leland saw a single case at the dispensary, about a week later, which he kindly asked me to examine with him. I find the abnormal distribution of the large vessels of the pharynx hardly mentioned in works on diseases of the throat. In anatomical works, the possibility of variation in distribution of the vascular channels is alluded to in a cursory manner, but clinically very little has been said or written upon this subject.

"The vessels are usually deeply situated and quite small. The vessel in the left side in the present case feels considerably larger than the radial. In all surgical operations on the back of the pharynx, such as incision, or the application of the Galvano cautery, we may see at once how important it is to bear in mind the possibility of such a case as this, and to examine carefully as to the exact position of the blood-vessels. If the tonsillar branch were abnormally large, it would be sufficient to cause a very severe hæmorrhage after tonsillotomy, or deep incision, as in the case reported by Dr. Lefferts of New York, in which a vessel was cut by the guillotine, of so large a size as to require the application of a ligature, on account of the alarming hæmorrhage. Possibly in other cases of profuse bleeding after tonsillotomy, a similar condition of enlarged or abnormally situated vessels might be found."

Dr. W. N. Bullard then presented a girl aged 13 years, who was affected with

LUPUS ERYTHEMATOSUS.

The disease had existed one year, and was seated on the face and hands. The color of the skin in these parts was of a mottled hue, and on the face were a large number of small scars, which were somewhat below the level of the surrounding skin, and were of a dead white color. On the hands, which were similarly affected, the disease appeared as large elevated nodules of a livid color, and were confined principally to the extensor surfaces of the fingers, though the whole dorsum of each hand was of the same livid and mottled hue as the face. The disease extended only to a point just above the wrist, on each hand, where it abruptly terminated. The general health of the child was otherwise good.

Dr. White pronounced the case a typical one, but not so rare as has been supposed. The disease is much more common here than in Europe, but the small size of the present patient makes this instance seem more than usually interesting. The girl, however, is 13 years old, and after this age the appearance of this form of lupus is not so excessively rare. It is not frequently seen on the hands, but the co-existence of the same affection upon the face is very instructive as well as interesting. The disease is essentially an inflammatory process, confined to the sebaceous follicles.

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT.)

Perityphlitis—Foreign Bodies in the Œsophagus—The New York Academy of Medicine.

At the meeting of the New York Surgical Society, of which a partial report was given in The Journal of May 15, Dr. H. B. Sands read some remarks on *Perityphlitis*. Within the last few months, he said, a number of cases of this affection had come under his observation, and they had had the effect of impressing very strongly upon his mind the necessity of absolute rest in its treatment. He could recall the case of a physician suffering from perityphlitis, who was doing fairly well, but who, while the disease was in progress, was allowed to take several doses of cathartic medicine, each of which only aggravated the trouble. Finally, after a copious passage, produced by an enema, he became collapsed, and death soon followed. The autopsy was made by Dr. George L. Peabody, but no cause was found for the existing perforation of the appendix. In this case it was evident that for a time the difficulty had been confined within quite narrow limits, and it could not be doubted that a better chance of recovery would have been afforded if the patient had been kept absolutely quiet, and opium given instead of cathartics.

The second case referred to was one which he saw in consultation with Dr. A. B. Ball. The patient was over 60 years of age, and Dr. Sands was called in because the symptoms were supposed to be those of strangulated hernia. It was true that he had a hernia on the right side, but the hernial sac was found so flaccid that the present trouble could not be attributed to this. The symptoms, also, were not exactly those of strangulated hernia. The case was in reality one of perityphlitis, but the patient was allowed to get up and go down town. The result was that peritonitis set in, and he died a short time afterwards. The post mortem examination showed perityphlitis, with perforation of the vermiform appendix, and an empty hernial sac on the right side. This case also, he thought, emphasized the importance of rest and opium in perityphlitis.

In one of the other cases narrated by Dr. Sands he said that for the first time in his experience he had met with the accident of cutting the intestine in an operation, and that this had occurred notwithstanding the fact that the hypodermic syringe was first resorted to, with the effect of withdrawing pus. When in operating the tumor had been arrived at, all who were present received the impression that a piece of intestine was being dealt with, and it seemed to him personally that there was a portion of the cœcum in the wound, instead of the usual abscess cavity. He made a cut with the scissors, and the impression conveyed to his mind was that he was cutting intestine From the opening there came pus and air, but no fæces The next day (Sunday), however, fæces made their appearance, and by Monday night they were flowing away in large quantity This free flow of fæces continued for about ten days, but at the end of a fortnight it had ceased altogether The patient got entirely well in three weeks Dr Sands thought that in this instance the hypodermic needle must have passed through both walls of the intestine before penetrating the abscess

The last two cases mentioned he had seen very recently One of them was that of a young lad, the son of a physician There were symptoms of peritonitis, in connection with perityphlitis, and after discussing the subject thoroughly with Dr Sands, the father declined to have an early operation performed The case went on pretty well for a week, but on the ninth day the patient became much worse There was subnormal temperature, distension of the abdomen, and vomiting, and the condition was in every way alarming He operated, in the usual way, April 24, and the abscess cavity was found to contain pus and fæces The patient, when last seen, was convalescent

In a case in which he operated on Sunday, April 25, the patient was a lad of 14 The first symptoms had appeared just a week before, and he first saw him on Wednesday, when he thought there were signs of perforation on the side of the peritoneum There was marked tympanites, and he was unable to make out the presence of a circumscribed tumor, although Dr A H Smith, who had been in attendance previously, said that he had discovered one when the abdomen was not so much distended Dr Sands saw the case again on Saturday, when the condition was found to be very bad As in the previous case, he debated very carefully whether to cut in the median line, or at the side, and thought it preferable to make the incision in the latter position Accordingly, he operated at 2 P M on Sunday, and when the layers of the abdomen were cut down upon, about half an ounce of pus was seen to flow from a small opening The abscess was doubtless in the cavity of the peritoneum, and the case, as had been suspected, was one in which perforation had taken place toward the serous membrane, and not one of perityphlitis amenable to the usual operation The patient died at 6 P M the same day

In closing Dr Sands said that he wished to call attention especially to the question whether in these cases laparotomy was preferable to the ordinary operation for perityphlitis When peritonitis had become general, laparotomy, in his opinion, offered no hope of saving life

Dr C K Bridden having remarked that he was inclined to doubt whether Dr Sands had in reality wounded the intestine in the case in which he believed this accident to have occurred (stating that if he had done so, he did not think that the patient would have recovered so readily), Dr Sands replied that it was quite possible to have a simple wound of the intestine, and have a rapid recovery also In illustration, he related a remarkable case of gunshot injuries of the intestines which had occurred in his own hospital experience

Dr A P Gerster presented a specimen which he thought constituted an interesting contribution to the subject of *Foreign Bodies in the Œsophagus* It was taken from a child 12 months old, in whom signs of respiratory difficulty, apparently in the larynx, first showed themselves at the age of 6 months About two months before Dr Gerster saw the infant a specialist in diseases of children was called in consultation, and made the diagnosis of a tumor, with a broad pedicle, in the larynx There was increasing difficulty in breathing, with occasional aggravated paroxysms, and when the case came under his observation, he found that there was frequent respiration, and that the dyspnœa was principally expiratory, there being but little difficulty in inspiration Owing to the paroxysms set up by the attempt to make a laryngoscopic examination, it was impossible to get a view of the parts Up to this time the general condition of the child had been good, but there was now considerable trouble in deglutition, and it began to fail appreciably The most careful inquiry failed to elicit the history of any foreign body having been swallowed In view of the increasing frequency of the attacks of suffocation, he advised an exploratory tracheotomy, to which the parents consented

On account of the extremely short and thick neck of the infant, he was obliged to select the higher operation, but when the trachea was opened, he was disappointed to find that there was not the slightest improvement in the respiration A soft catheter was introduced into the trachea and the branches, but no abnormality could be detected One very curious thing, however, was noticed When a canula was introduced into the trachea, the difficulty of respiration was increased, but as soon as he placed his finger over the mouth of the canula, the breathing became easier Fearing to keep the child, who was in very bad condition, longer under the influence of anæsthetics, he ordered the canula, with its orifice plugged, to be kept in position, his design being to keep the trachea open, and on a future occasion make a more careful examination The next day, however, pneumonia set in, and in three days death resulted

At the autopsy the larynx was found to be entirely normal, but a little lower than midway between the cricoid cartilage and the bifurcation of the trachea there was a triangular defect of the trachea, and as the seat of this defect the sharp edge of a metallic body projected into the trachea for about three millimetres The foreign body was a flat brass button, three quarters of an inch in diameter Corresponding to the defect in the trachea, was another defect in the œsophagus, circular in shape, and almost one centimetre in diameter The foreign body was imbedded in the tissues between the trachea and the œsophagus, being held in position precisely as a picture by its frame The ulcerative process had evidently been terminated by complete cicatrization No active inflammation was found in progress at the time of death, but the tissues were considerably thickened by former inflammatory processes

Dr Gerster said that among the questions which suggested themselves in connection with this case were the following How shall we explain the fact that there were no symptoms of any great dyspnœa at the time the foreign body was swallowed? Why is it that the symptoms of pronounced dyspnœa have developed so late? In answer to the second inquiry, he said that as time went on, the cicatricial contraction of the parts became greater, and thus the symptoms of dyspnœa and dysphagia became progressively aggravated Another question that might arise was, How shall we explain the difficulty of expiration, as contrasted with the comparative ease of inspiration? This, he believed, was on account of the position of the foreign body, which was oblique, and gave to it the action of a valve The stream of air rushing up from below had the effect of raising the projecting edge of the button, and thus placing it more transversely to the axis of the trachea The minute dimensions of an infantile trachea, still further reduced in this case by cicatricial contraction, would be influenced by very minute changes of position

As regards the question whether the foreign body could have been extracted, he felt constrained to express a negative opinion If, after tracheotomy, he had made use of a suitable probe, instead of the soft catheter, he would undoubtedly have detected the presence of the foreign body, but he doubted whether it could have been removed through the trachea without producing instant death from suffocation

Dr T M Markoe referred to a case recently reported by Bennett May, in which he successfully extracted a foreign body which had been in the œsophagus for three years, and had ulcerated partly into the trachea In answer to a question by Dr Gerster Dr Markoe stated that the child in this case was 7 years old, and that he fully appreciated the marked advantages which this more advanced age would give over the case of an infant such as Dr Gerster's patient

In reply to a question by Dr R F Weir, Dr Gerster said that he believed that an attempt to remove the foreign body would have proved fatal, because the diameter of the button was larger than the calibre of the trachea, and hence it would have completely plugged up the passage, and probably for a sufficiently long time, during the efforts at extraction, to cause suffocation

Dr Weir then said that he differed from Dr Gerster on this point, as in operations upon the throat he had more than once seen the trachea entirely occluded temporarily, in a digital exploration, without any serious result following He therefore thought that if the foreign body could have been seized, it might have been safely removed The risk of suffocation would come from the button slipping from the grasp of the forceps after it had been lifted out of its bed, but even then experience had already shown that such bodies often tilt sideways, so as to offer the least obstruction to air currents

That the position taken by your correspondent, that the New York Academy of Medicine, by the recent alterations which it has made in its constitution and by-laws, has completely deprived itself of the power of disciplining its members, is proved to be incontrovertible by the significant fact that at the stated meeting of the Academy held May 6, the following proposed amendment to Article VIII, Section 1, of the constitution, was introduced "The Academy may suspend or expel a Fellow for violation of its regulations, *or the commission of any act which unfavorably affects the character of the medical profession of the interests of the Academy*"

The incident related in a recent letter, however "unsavory" it may be, is not so "unauthenticated" as the *Medical Record* would have its readers believe, and it is a well known fact that the proposed amendment to the constitution is simply the sequel of the case referred to As to the facts of that case, as published, they were received directly from a prominent officer of the Academy, whose word no one acquainted with his standing would think of impeaching

P B P

MISCELLANEOUS

USE OF MICROSCOPE FOR DETECTING OTHER ANIMAL FATS IN BUTTER

[The following letter from DR THOMAS TAYLOR, of the U S Department of Agriculture, to the Editor of *Public Health in Minnesota*, is of sufficient interest to publish in full]

My Dear Sir —When I commenced microscopic observations of butter and fats, several years ago, it was with a firm conviction that I should be able to discriminate between pure dairy butter and oleomargerine by means of polarized light, basing my convictions on the fact that pure dairy butter is a non-polarizing substance, while the solid and semi fluid fats contained in such substances as lard and beef fat oil are polarizing bodies

When a specimen of butter like material is presented for testing, I mount about a grain of it upon a microscopic slide (a piece of glass 3 × 1 inch), over which I place a circular glass over, and compress the substance into a thin film, or until it appears semi-transparent If it presents a white, even, cloud like appearance, and has the odor and taste of butter, I conclude that it is probably butter If when boiled over the flame of a spirit-lamp, it gives off the odor of butter, I consider this an indication in its favor If when triturated with a few drops of strong sulphuric acid, it slowly becomes of a pale salmon color, within five to twenty minutes, or of a light brick red, changing after the lapse of about twenty-four hours to a tallow color, this is another indication of its genuineness Lard and beef fat, in the same length of time and under similar conditions, each assume a walnut color (For a fuller explanation of my acid test, see my first paper on the acid treatment of butter and fats)

If the sample is submitted to the action of polarized light and selenite plate, and appears of a uniform green, red, blue, or yellow color, according to the selenite used, we have another indication that the substance is pure butter , normal butter, under these conditions, never exhibits prismatic colors

Sometimes large crystals of salt cause the appearance of prismatic colors by refraction These should be removed Butter that has been exposed to the light until it is bleached, or butter that has been in immediate contact for a long time with a substance that absorbs its oil, as when placed in wooden tubs, has undergone a chemical change, and should not be considered as normal butter A superior butter when boiled with or without oil, will yield large crystals of fat by attending to the following directions Place from half an ounce to an ounce of butter in a test tube of sufficient capacity, holding the tube by means of a twisted wire over a spirit lamp, until the butter is thoroughly boiled for about one minute, then, in order to crystalize, let it cool in an atmosphere of 50 to 60 degrees F, during a space of from 12 to 24 hours, so that it will crystallize slowly this will give the best results Take a portion of this, when cooled, on the point of a pen-knife, place it on a glass slide, add to it one drop of sweet oil, and, with a pin, separate the crystals, which are large enough to be seen with the naked eye Subject the specimen to polarized light, turn the polarizer until a dark ground is produced, and the butter crystal will appear bright, exhibiting upon its surface a black cross, in outline the same as that known as the cross of St Andrew

When old butter, or butter which has been kept in a warm atmosphere, is boiled and cooled, a secondary crystallization quickly takes place, of rosette like form, which generally proceeds from the center of the cross A very superior, freshly made butter, rich in fats, which has been kept cool previous to re-boiling, map be preserved a long time at a temperature of 60 degrees, without exhibiting the rosette crystals, some of which may be observed in the act of "budding," the interspaces filled with the rosettes which have floated off from the original globose forms which show the black cross These appearances are among the conditions which distinguish pure butter from the fats of beef mutton and lard Use a magnifying power of about 250 diameters for the small rosette like bodies, which vary greatly in size, and might be mistaken by an inexperienced observer for the crystals of the fat of beef, in their early stage of development

Beef Fat—Take any portion of beef fat, render it slowly in an iron pot without water, strain it and set it away to cool To an ounce of solid fat thus obtained, add cotton seed oil, heat in a test-tube nearly to the point of decomposition, and let it cool for about 24 hours at a temperature of about 60 degrees, F Its consistency should then be semi fluid The crystals of the fat of beef are very small on first boiling and should be reboiled and cooled several times In this way the crystals enlarge and become better defined, and appear quite different from the secondary crystals of butter High powers are required for this fat, say from 450 to 1000 diameters The crystals of beef fat treated as above, and viewed under high powers, present a foliated appearance In my ordinary methods of mounting for temporary use, I take care to press the covers very gently, especially when mounting large crystals of butter Beef, mutton and lard may be pressed without damage

Lard—No reliance can be placed upon the lards of commerce as to their purity Leaf lard is now rendered by some firms with a small quantity of soda for the purpose of dissolving the tissues, by this means an impure lard is produced, which contains a small amount of soap in which the crystals are not so well defined as in lards rendered without the aid of chemicals

Lard composed of stearine and cotton seed oil is also in the market, it may contain beef fat, for one of the forms of stearine is a roughly made by product of the oil of beef fat A lard thus made will show strongly marked stellar crystals To avoid mistakes in regard to the crystallography of the fats of plants and animals, I always render the fats I use in my experiments, noting the stages of crystallization through which they pass in oil solutions

Having noted some of the peculiarities of normal butter, the crystalline character of boiled butter, of lard, and of tallow, one is in a position to discriminate between pure normal butter and the butter substitutes containing free fats That pure dairy butter viewed under polarized light and selenite plate, shows no prismatic colors, the following experiments demonstrate Place a green selenite between the polarizer and the analyzer and a plain green color will be observed Then place a mounted slide of normal butter under the selenite, view again, and the same even green color is observed Now, place a small portion of lard and beef fat oil on the slide, and with polarized light and the same green selenite, the fat will exhibit prismatic colors, showing the contrast between a polarizing body, such as the semi-solid fats, and a non-polarizing body like pure dairy butter

Butter and oleomargarine—The preceding experiments explain why butterine, which contains solid or semi fluid translucent fats, such as lard and tallow, in combination with unboiled butter, is so easily detected when submitted to the action of solarized light and selenite plate The crystals of lard or of tallow are seldom absent, and are easily distinguished from the mass of amorphous fats with which they are combined This is one of the most important of all my tests of oleomargarine and butterine

Prof H A Weber, of the Ohio Experiment Station, reports in Bulletin 13 of that Station, under date of March 1, 1886, that by the use of my butter tests on a variety of butters procured from those on exhibition at the Stock Show at Chicago, he observed invariably the form of the St Andrew's cross, as I have described it, and further, that on submitting lard to polarized light, "nothing but the small irregular stellated bodies could be seen, in which cross was entirely wanting A large number of slides were mounted and examined, but not a single 'butter crystal' could be found" Prof Weber further states that "oleo oil" (beef-fat oil), treated in a like manner, gave similar results, "only small stellate crystals were present Thus far the results and statements of Dr Taylor were fully corroborated" He thus acknowledges the correctness of three of my original experiments, but fails to apply them in practice According to his report he made fifteen experiments in all, of these only the first three have any relations with my methods, the remaining twelve are based on his uniform plan of boiling all of his combinations of butterine at a high temperature

I have just examined a composition of butter and "oleo oil" (beef fat oil), in the proportions given above The butter was melted at a temperature of 104° F, and combined with the beef-fat oil The mounted slide did not show any butter crystals, while it did exhibit those of beef, (oleo oil) In this case the methods of those engaged in the production of butterine and oleomargarine, were imitated by only melting the butter and fats at a very low temperature Prof Weber erred in boiling his oleomargarine, and this holds good with all his experiments, from four to fifteen inclusive His last twelve experiments must be eliminated from our consideration of this subject, because they have no relation to my methods of discriminating between butter and oleomargarine, nor has the black cross of boiled butter any direct relation to this subject, since dairy butter is not sold in the markets in a boiled condition It is only when the differentiation of the respective crystals of the fats of the various plants and animals is considered, that the cross of butter becomes an important factor

Prof Weber's experiments, wherein by triturating lard and oleo oil with a little salt and water, he forms globular fatty bodies, which exhibit a cross like that of butter, affords an interesting confirmation of my statement to the Commissioner of Agriculture, see the annual report for 1885, wherein I say, that any body which is globular, translucent, smooth and polarizing, will show a cross (See also the Annual Report of the American Society of Microscopists for same year)

That which Prof Weber terms fat "globule," is such a body as I described, "globular, translucent, smooth and polarizing" Polarizing, because it contains semi-solid, translucent fats Had Prof Weber examined such globules by plain transmitted light, he would have discovered that they have no resemblance to the globose butter crystal viewed under the same conditions, which has a uniform structure peculiar to itself (See figure 2, of the abstract of my paper on Butter and Fats, read before the American Association for the Advancement of Science, last September)

In an experiment made as late as the 20th of this month, in the presence of Prof Wiley, Chief Chemist of the Department of Agriculture, and two of his assistants, Mr Richardson and Mr Richards, I demonstrated that a butterine made at my request in the Laboratory, which contained but *1 per cent lard to 99 per cent pure butter*, exhibited, when examined by polarized light and green selenite, well defined crystals of lard, of a rich golden color on a green ground, the green representing the butter In this way the adulteration was at once detected

The experiments of Prof Weber are calculated to introduce confusion and difficulty into a matter in itself comparatively clear and easy The problem which has engaged his attention seems not to have been how to discriminate between butter and its substitutes, but how to subject them to conditions which, as far as possible should render them indistinguishable It must be borne in mind that the manufacturers of counterfeit butter are obliged to limit their treatment of the substances they use to such manipulations as are consistent with the salability of the product

Ohio State Medical Society —The forty first annual meeting of this Society will be held at Akron, Ohio, on June 2, 3, and 4, 1885, under the Presidency of Wm Morrow Beach, M D The list of papers is very large and unusually promising Delegates and members should procure railway certificates from the Secretary, G A Collamore, M D, of Toledo, before leaving home, specifying the route chosen

A New Work on Renal Diseases —A forthcoming work on "Bright's Disease and Allied Affections," by Dr Charles W Purdy, of Chicago, is announced by Lea Brothers & Co It will be published simultaneously by H K Lewis, of London

Chicago Medico Legal Society —This Society, which has been recently formed in this City, has for its object the investigation, study and advancement of the science of medical jurisprudence, the punishment of unprofessional and criminal practices by members of the medical and legal professions, the prevention of blackmailing, and the procuring of such legislation as may be necessary to these ends Applications for membership should be addressed to the Executive Committee, through the Secretary, Marshall D Ewell, M D, 170 Washington St, and should be accompanied by $5 00, which will be returned if the applicant be rejected Any regular practitioner of medicine or lawyer in good standing may, upon recommendation of the Executive Committee, become a member

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM MAY 8 1886 TO MAY 14 1886

Major David L Huntington, Surgeon, ordered to proceed from Washington to Davis's Island, New York Harbor, on public business connected with the reconstruction of the present hospital building at that depot, or the erection of a new one On completion of this duty to rejoin his station (S O 109, A G O, May 10, 1886)

Major Henry R Tilton, Surgeon, from Dept East to Dept Cal

Major John Brooks Surgeon, from Dept Cal to Dept East

Capt Edward T Comegys, Asst Surgeon, from Dept Mo to Dept East

Capt Aaron H Appel, Asst Surgeon, from Dept East to Dept Mo (S O 106, A G O, May 6, 1886)

Cap James A Finley, Asst Surgeon, ordered for duty at Ft Buford, D T (S O 39, Dept Dak, May 5, 1886)

Capt R B Benham, Asst Surgeon, ordered to Dept of the Platte (S O 109, A G O, May 10, 1886,)

Capt A V Cherbonnier, Medical Storekeeper, U S Army, granted leave of absence for four months, with permission to apply for four months' extension (S O *109*, A G O, May 10, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING MAY 15 1886

Bransford, J F, Surgeon, invalided home from Pacific Station

Winslow, Geo F, Surgeon, ordered June 1 prox to the U S S "Atlanta"

Heffinger, A C, P A Surgeon, detached from the Navy Yard, Portsmouth, N H, and ordered to U S S "Atlanta" June 1

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI Chicago, May 29, 1886 No 22

ADDRESS IN SURGERY

THE PRESENT STATUS OF ABDOMINAL SURGERY

Delivered at the Thirty Seventh Annual Meeting of the American Medical Association on Tuesday, May 5, 1886

BY N SENN, M D ,

OF MILWAUKEE WIS

CHAIRMAN OF THE SURGICAL SECTION OF THE AMERICAN MEDICAL ASSOCIATION FOR 1886

The frequency with which grave complications followed even the most trivial operations before the introduction of the modern treatment of wounds, undoubtedly induced the great Hunter to remark "The necessity for operation is in truth the defect of surgery " To day, with an improved technique and the means at our disposal which, if properly applied, will furnish almost absolute protection against wound infective diseases, the surgeon can, with a just source of pride and gratification, confirm the correctness of the assertion made centuries ago by Celsus, "*quæ manu potissimum curat*"

No one who is familiar with the medical literature of the last two decades can arrive at any other conclusion than that the legitimate sphere of the physician has been gradually growing smaller, or, if this statement be objected to, that the practice of medicine has become more and more surgical In accordance with the spirit of the times, uncertainty and doubt in the diagnosis and treatment of disease must give way to positive knowledge and actual demonstration Surgery has gained the supremacy over medicine because the principles upon which modern surgery rests have been made the subject of accurate investigation and positive demonstration in the chemical, physiological and pathological laboratories

The science of surgery is rapidly assuming a degree of accuracy approaching in perfection any of the exact sciences During the last few years surgery has assumed a decidedly progressive and aggressive character Operations which a few years ago would have been deemed impossible or unjustifiable, have become established, legitimate surgical procedures In obscure doubtful cases the scalpel is now frequently resorted to, without fear of causing additional complications, for the purpose of making *intra vitam* an anatomical diagnosis Modern surgery has achieved its greatest triumphs in enlarging the field for the direct local treatment of disease, thus enabling the surgeon to treat with success injuries and lesions beyond the reach of medicinal agents The surgical literature of the day bears abundant evidence that the remotest organs are now approached by the surgeon with comparative immunity, and that incalculable benefit has been derived from direct operative treatment The affections of abdominal organs have received the well merited attention of surgeons since the improved wound treatment has been introduced Numerous maladies which heretofore have been considered incurable are now successfully treated by the surgeon by operative measures Experimental research and clinical experience have demonstrated that organs and parts of organs which were heretofore regarded as indispensable and essential, can be successfully extirpated when they are the seat of injury or disease With a view of directing your attention to a few of the most brilliant achievements of modern surgery, I have selected as the subject of my address, 'The Present Status of Abdominal Surgery " A condensed brief account of the more recent advances made in the surgical treatment of injuries and diseases of the abdominal organs must interest equally the physician and the surgeon

It is not my intention to trespass upon the legitimate field occupied by the ovariotomist or the gynecologist I shall therefore limit my remarks to a consideration of such injuries and lesions of the abdominal organs as they present themselves to the physician and general surgeon It will be my special aim to point out the limitation of abdominal operations, and to draw a distinct line between the feasibility and justifiability of such operations

I *Penetrating Wounds of the Abdomen* —During the last year the literature on this subject has been enriched by two valuable papers by Drs Dennis and Bryant, of New York These contributions, made in such rapid succession, may be considered as sufficient evidence of the deep interest which has been awakened among American surgeons on this practical and important subject

Dennis has well said, "It is a source of National pride that laparotomy in penetrating wounds and visceral injuries of the abdomen was conceived, developed and perfected in America."

The propriety of resorting to abdominal section in every case of penetrating wound of the abdomen is urged by many, but it cannot be said that this practice is sanctioned by the majority of the profession at the present time The great difficulty that presents itself to the surgeon in the absence of positive symptoms, is to differentiate between a penetrating and a visceral wound Clinical experience and statistics have demonstrated the importance of making a distinction between punctured wounds and gunshot wounds of the abdomen both in reference to diagnosis and treatment It is well known that penetrating stab wounds are less likely to be complicated by visceral injury than bullet wounds, consequently this class of injuries offers a more favorable prognosis and does not call so uniformly for treatment by abdominal section As in stab wounds, there is a greater tendency to prolapse of the intestine, exploratory laparotomy for diagnostic purposes is also less frequently called for The numberless recoveries after stab wounds of the abdomen, without resorting to heroic treatment, must induce every thoughtful surgeon to abstain from subjecting the patient to the additional risks of laparotomy, unless the symptoms are such that the existence of visceral injury can be assumed with a reasonable degree of certainty It must, however, be remembered in arriving at conclusions concerning the nature of the injury, that the symptoms do not always correspond to the gravity of the visceral lesion, hence if any doubt remains in the mind of the surgeon, it is justifiable and proper, now that exploratory laparotomy can be made with such comparative immunity, to resort to it and give the patient the only chance of recovery by ascertaining the exact nature of the injury, which can be the only proper and safe guide to rational and successful surgical treatment Dr Dennis has called special attention to volvulus as another complication of stab wounds of the abdomen, a condition which, when present, would in itself always indicate an abdominal section for its relief In doubtful cases exploratory laparotomy can be done by enlarging the wound, which, when required, can be followed by the usual incision in the median line when operative treatment of the visceral lesion is required

In gunshot wounds of the abdomen the course of treatment to be pursued is more definitely settled by accumulated knowledge resulting from careful experimental research and an immense clinical material These injuries are so uniformly fatal that the slightest suspicion of injury of the intestine calls for treatment by laparotomy as affording the only chance of recovery for the patient The statement by Otis that gunshot injuries of the small intestines are always fatal if treated upon conservative principles, is practically well established, and is a sufficient argument in favor of treatment by abdominal section In penetrating gunshot wounds it is highly probable that visceral injury exists, and this fact constitutes a potent argument in favor of surgical interference, which alone is adequate to prevent an inevitable fatal termination The brilliant results which have been obtained by Bull, Hamilton, and others in desperate cases of multiple perforations of intestines, by operative treatment, afford abundant encouragement for imitation of their practice

It can be justly said that the surgeon who allows a patient *to die from* the effect of a visceral injury of the abdomen produced by a stab wound or a bullet wound, without at least a proposition to resort to abdominal section, has failed to discharge the duties imposed by the teachings of modern surgery Difficulties may be encountered by the medico legal bearing of a case, but when called upon to treat an otherwise fatal injury, this should not deter the surgeon to resort to the only measure which might save a human life The first indication that presents itself in the treatment of an open wound of the peritoneal cavity is to prevent infection by covering the wound with an antiseptic compress, until ample preparations can be made for more effective treatment Whenever practical, the necessary dressing or operation should be done with the least possible delay and at or as near as possible the place where the injury was inflicted Procrastination and transportation are dangerous factors in the treatment of this class of injuries, as both augment the gravity of the case by increasing the danger arising from the two most dangerous conditions—hæmorrhage and fæcal extravasation

The preparation for an abdominal section should be made with the same care as in opening the abdomen for the removal of an ovarian tumor If the operation has to be performed we can never rely on an aseptic atmosphere, hence the minutest details of antiseptic surgery must be followed The wound and especially the prolapsed viscera must be kept protected as much as possible against the air by avoiding unnecessary exposure

As a disinfectant solution corrosive sublimate should be preferred to carbolic acid The temperature of the room should be kept at 80–90° F Until the abdominal cavity is opened the field of operation must be frequently irrigated The intestines when brought out of the wound should be carefully protected with a warm aseptic compress kept moist with a weak solution of corrosive sublimate with a view of preventing abstraction of heat and guarding against infection

The abdominal section has for its object 1 Positive diagnosis 2 Arrest of hæmorrhage 3 Restoration of a breach of continuity 4 Removal of extravasation Exploration of a penetrating wound either with the finger or a probe is never justifiable as it increases the danger from extravasation and hæmorrhage without furnishing any information of a diagnostic value The direction of the wound canal and the anatomical location of the different viscera must be carefully considered before resorting to operative measures

When it becomes necessary to make an exploratory incision of sufficient size to enable the operator to introduce his hand it is preferable to select the median line, as an incision at this point inflicts less additional traumatism, is attended by little or no hæmorrhage, and can be utilized at once for the necessary operative treatment of the visceral lesions, if they exist It is a source of comfort to the surgeon to know that the different operators experienced but little difficulty in detecting the seat of lesion in the bowel, and that usually all the perforations were found in multiple wounds of the intestines It is unnecessary to urge upon you the importance of a careful search for additional injury when one perforation is found, as a failure to detect all of the openings in the intestine would frustrate the object for which the patient was subjected to such a grave procedure

Great stress has been placed upon the importance of carefully arresting all hæmorrhage From the peculiar anatomical relations of the blood vessels in the abdominal cavity it has been found that even very small vessels will continue to bleed unless permanent hæmostatic measures are employed If many bleeding points are encountered a number of hæmostatic forceps can be applied before tying the vessels If any of the large venous trunks have been injured, peripheral venous compression will facilitate the difficult task of securing the bleeding vessel If the wound in the bowel can be approximated without producing too much narrowing of its lumen it should be closed with a Lembert's or a Czerny Lembert's suture

If enterectomy becomes necessary the two ends of the bowel should always be united with a Czerny-Lembert's suture, as this suture secures accurate approximation of an extensive serous surface, and thus furnishes the most favorable condition for rapid union which affords the best possible protection against the danger of subsequent extravasation If fæcal extravasation has taken place it becomes necessary to resort to a careful toilet of the peritoneum, which can be accomplished most efficiently with large flat aseptic sponges wrung out in a weak solution of sublimate When extensive soiling of the peritoneal cavity has taken place it would appear most expedient to resort to thorough irrigation with warm sterilized water, with a view of effecting mechanical removal of all foreign substances When this has been accomplished the peritoneal cavity should be further cleansed and dried with a sponge wrung out of a $\frac{1}{20}$ per cent solution of corrosive sublimate The abdominal incision is closed in the same manner as after abdominal section for other purposes, in all cases where we have reasonable cause to believe that we have succeeded in securing an aseptic condition of the peritoneal cavity, if any doubt remains upon this point, drainage is indicated

The subsequent treatment must be conducted on general principles, rest, absolute diet, and the administration of opium being the most essential conditions in favoring rapid healing of the the intestinal wound In the future shock will not be mentioned as frequently as heretofore as a cause of death in penetrating wounds of the abdomen, as it has only too frequently been mistaken for the symptoms due to acute anæmic from hæmorrhage into the peritoneal cavity Further, when life is threatened from this cause, a fatal termination can often be prevented by resorting promptly to transfusion of blood, or infundation of a saline solution, after the bleeding points have been secured I am satisfied that no modern surgeon would hesitate to endorse the treatment of visceral wounds of the intestines by abdominal section, the opposition to the operation can only be entertained in cases where it is impossible without an exploratory incision to differentiate between a penetrating wound and a visceral wound

It is to be regretted that in perforating wounds of the intestines symptoms are often deceptive, and cannot always be relied upon as an unerring guide in diagnosis Grave symptoms may be almost entirely absent, and yet many perforations exist, while in other instances severe symptoms may be present without visceral injury Until we shall be able to make a differential diagnosis by the simple interpretation of symptoms, we must insist upon the justifiability of explorative laparotomy for diagnostic purposes in all doubtful cases, and upon the importance of treating all visceral wounds of the intestines by abdominal section, as affording the only chance of preventing an otherwise almost certain fatal termination

II *Laparo Colotomy*—In cases of rectal cancer not amenable to extirpation, Madelung advises that the colon should be divided completely across low down, and the peripheral end should be permanently closed by inverting the margins deeply and applying two rows of sutures A preternatural anus is established by stitching the proximal end to the margins of the wound in the same manner as in forming an intestinal fistula in any other locality The advantages of this operation over the ordinary method are twofold 1 The disease in the lower end of the bowel is not aggravated by the coming in contact with the intestinal contents 2 No fecal accumulation takes place below the artificial opening as is so often the case after the ordinary methods of colotomy Pollsson and Letievant advise the same operation

III *Subcutaneous Laceration of Intestines*—One of the darkest chapters in abdominal surgery pertains to subcutaneous traumatic rupture of the intestines That this accident occurs more frequently than has been generally supposed is well substantiated by recent investigations, and as the majority of cases have proved fatal on the expectant treatment, it is proper and important to consider the propriety of abdominal section in all cases where we have reason to suspect its existence

Muguier has called attention to the fact that in some instances, the laceration may be incomplete and give rise to no serious symptoms for days or weeks, until perforation takes place A contusion of the abdomen is received and the patient and surgeon are in the belief that no serious injury has been sustained until symptoms indicative of perforation, and fæcal extravasation announce the gravity of the primary lesion He reports three cases of this kind which came under his own observation, only one of which terminated favorably, and in this case the perforation produced a suppurative perityphlitis He cites four additional cases, of which two terminated in recovery after the formation of a fæcal abscess These cases should at least put us upon our guard to exercise proper care in the treatment of abdominal contusions, so as to prevent, if possible, the disastrous consequences incident to perforation Regulation of diet, rest, and the use of opiates may do a great deal towards the restoration of a partial loss of continuity of the injured bowel

Chavasse observed two cases of laceration of the intestine from contusion of the abdomen which induced him to compile all cases of rupture of the intestines due to the same cause He found a record of 149 such cases A careful study of this material led him to the conclusion, that in almost every case laceration or crushing of the intestine takes place at a point between the place where the external violence is applied and the unyielding resistence offered by the posterior abdominal wall Of these cases only six recovered, while the remaining number usually died within twenty four hours with symptoms of perforative peritonitis He is in favor of treatment by abdominal section, with a view of suturing the torn intestine or making an artificial anus

Berger insists that laparotomy should be performed in all cases where a diagnosis of intestinal rupture can be made In the differential diagnosis injury to the kidney becomes apparent from the character of the urine Injury to the gall bladder can be excluded if the patient throws up large quantities of bile The direction and amount of force which produced the injury as well as the extent of surface which was exposed to the violence, must also enter into consideration in determining the location and extent of the visceral injury In contra distinction to injury of the liver and spleen, rupture of the intestine must be suspected in case the force is applied over the median line, anteriorly, forcing the intestines directly against the spinal column Berger and Verneuil speak against primary resection and suturing in these cases, and advise the formation of an artificial anus The great difficulty which presents itself to the surgeon is the absence of positive diagnostic symptoms

In a recent paper on this subject Dr Weir enumerates as the most prominent symptoms collapse, rapid respiration, frequent wiry pulse, vomiting thoracic respiration, emphysema, and absence of hepatic dulness The last symptom, when present is one of the most certain signs indicative of the existence of perforation, but it is also necessarily absent in all cases where the liver has become fixed and immovable by inflammatory adhesions prior to the accident Emphysema and collapse are the two most constant and reliable symptoms upon which to base a probable diagnosis soon after the accident has occured Extensive extravasation usually does not take place, as the experiments of Jobert upon dogs have shown, that if the intestine is completely divided, the ends may contract by their circular fibres, and thus prevent escape of the intestinal contents Of all the cases so far reported, the rupture was found almost uniformly in the small intestines and in preference in the first portion of the tract, the duodenum and the jejunum, an important hint in searching for the seat of laceration on making abdominal section The shock attendant upon this accident is more apparent than real, and is in no ratio to the gravity of the injury It must also be remembered that hæmorrhage is an important element of danger, and, when considerable, it may simulate the existence of shock So far the only case on record where laparotomy was performed for traumatic laceration of intestines is reported by Mr Owens, of London, who found the laceration, sutured and returned the bowel Unfortunately the patient died Duplay affirms that the rupture, as a rule, is complete, and as such an accident must be uniformly fatal, abdominal section affords the only chance for the recovery of the patient and should always be resorted to whenever the history of the case and the symptoms presented indicate the presence of this lesion As the intestinal coats have undergone no pathological alterations, typical circular resection and suturing of the bowel should be practised in preference to the advise given by Chavasse, Berger, and Verneuil of establishing an intestinal fistula

IV *Intestinal Obstruction* —The treatment of intestinal obstruction by abdominal section is still in its infancy, but in view of the almost hopeless condition of patients suffering from obstruction due to permanent organic changes, the results which have been obtained by operative procedures should stimulate us to abandon the expectant treatment for more positive measures Schramm has collected 190 cases of intestinal strangulation treated by laparotomy, including three cases observed by himself in the practice of Mikulicz He alludes to the difficulties encountered in the diagnosis of these cases and pleads in favor of early operative interference Of this number 64 2 per cent died, the mortality before the antiseptic treatment of wounds being 73 per cent, and since that time 58 per cent The cause of strangulation and mortality attending each kind may be gleaned from the following table

27	times,	Invagination,	8	cured,	19	died
49	"	Bands or intestinal diverticulum,	13	"	36	"
16	"	Adhesions,	7	"	9	"
11	"	Reduction *en masse*,	6	"	5	"
10	"	Torsions,	1	"	9	"
12	"	Knotting of bowel,	4	"	8	"
12	"	Internal strangulation,	4	"	8	"
7	"	Foreign bodies,	4	"	3	"
38	"	Neoplasms,	16	"	22	"
8	"	Unknown causes,	5	"	3	"

The results of operations for internal strangulation will improve as soon as the physician will recognize the inefficiency of the expectant plan of treatment and will resort to timely operative measures, before the strength of the patient has been exhausted, or the cause of strangulation has led to extensive secondary pathological changes in the tissues about the seat of strangulation Recently Kussmaul has introduced irrigation of the stomach as a means of treating intestinal obstruction While this measure does not exert any positive curative effect upon the cause of obstruction, it serves as an efficient palliative by diminishing hydrostatic pressure and subduing increased peristaltic action, conditions which necessarily aggravate the symptoms due to obstruction

a Intussusception —Until recently the operative treatment of invagination has been considered by the majority of the profession almost in the light of a criminal procedure At present the indications are that most surgeons would resort to it in all cases where severe symptoms are present which would indicate the existence of acute or chronic obstruction from this cause and not remediable by medical treatment or local measures In cases where no adhesions have taken place between the *intussusceptum* and the *intussuscipiens*, reposition can frequently be effected by the administration of an anæsthetic for the purpose of relieving abdominal tension, manual or instrumental attempts at reduction, inversion of the patient, forcible rectal injection of water, and massage over the invaginated bowel The injection should be made slowly and uninterruptedly until resistance is overcome, but also with sufficient care to prevent rupture of the bowel.

If these measures fail to effect a reduction no time should be lost in resorting to abdominal section with a view to facilitate disinvagination by direct manipulation. If by traction, direct compression, dilatation of neck of *intussuscipiens*, separation of adhesions, etc., reduction is not accomplished, circular resection of the invaginated bowel, or the formation of an artificial anus above the invagination present themselves as the only means to save life within the range of operative surgery. The formation of a preternatural anus is preferable in cases where a large portion of the bowel has become invaginated, and again where the general condition of the patient is so grave that the more severe operation of enterectomy is contraindicated. In fifty-one cases where laparotomy was done, reduction was successful in twenty-six—eighteen children with four recoveries, and eight adults with five recoveries. So far no child less than six months old has recovered after operation. In the twenty-five cases where reduction failed to be accomplished or where no attempt was made, in four the abdomen was closed without any further attempt being made; in all of them the result was fatal. Of eleven cases of resection only one recovered, and this was Czerny's case where the disinvaginated bowel was resected on acount of malignant disease. In nine cases enterotomy was performed, as reduction was found impossible, and circular resection was deemed impracticable; in all, except one, death occurred a few hours after the operation. In the latter case life was prolonged for two and one half days, the patient being an adult female.

So far success has attended abdominal section for invagination in cases where disinvagination by direct manipulation was accomplished, an experience which argues strongly in favor of an early operation before reduction is rendered impossible by additional pathological conditions. It may be stated as a rule that temporizing measures should not be relied upon for more than two days.

In the case of adults when chronic symptoms of obstruction precede an acute attack, the invagination is often due to the presence of a tumor upon the inner surface of the intestine, a condition so well illustrated by Czerny's cases reported by Fleiner. The first patient was 45 years of age where an adenocarcinoma of the ileo cæcal valve produced invagination of the lower portion of the ileum into the colon. The stenosis was partial and chronic, but when invagination occurred the symptoms of obstruction became sufficiently urgent to justify a resort to laparotomy, which was performed in the median line. The seat of obstruction was readily found and the invagination was corrected, but the patient died on the following day of peritonitis.

In the second case, a man 52 years of age, the symptoms of obstruction appeared suddenly. He recovered partially from this attack and came under Czerny's care six weeks after the acute attack. A tumor, freely movable, was found close under the right costal arch. The diagnosis was narrowed down to either a floating kidney with symptoms of strangulation or intussusception produced by a tumor of the intestine, with the probability in favor of the latter. Abdominal section revealed the correctness of the latter supposition. The ileum had slipped into the colon and had ascended as high as the right flexure of the colon. The invagination was reduced without difficulty. At the apex of the invaginated portion a carcinomatous tumor was found. The growth was excised with a broad healthy strip of the intestinal wall, and the wound sutured. The patient was discharged on the twenty-eighth day, and presented himself four months later in excellent health. That the prognosis would be more favorable if the invagination is caused by a benign tumor of the intestinal wall is apparent. If in such cases disinvagination is possible an incision into the bowel will enable the surgeon to remove the tumor either without or only with partial resection of the intestine, and the operation is finished by closing the wound with a Lembert's or Czerny-Lembert's suture.

b. Enterolithiasis.—The subject of intestinal obstruction by an enterolith has been prominently brought to the attention of the profession by two cases reported during the last year by Dr. Lange and Dr. Beam. Dr. Lange's patient was a woman 60 years of age who had for a year suffered at times from colicky pains which were attributed at the time to the passage of gall stones. She was suddenly attacked with symptoms of acute intestinal obstruction, and when visited by the doctor four days later she was in a condition of collapse. As an operation offered the only possible chance of recovery median laparotomy was performed. On opening the peritoneal cavity a considerable quantity of turbid flocculent serum escaped, and after the omentum had been lifted the small intestine presented itself, moderately distended and matted together by recent adhesions. Tracing the distended bowel, in a few seconds a hard lump was felt in the interior of the intestine, below which the bowel was entirely collapsed. It was evident that the obstruction was caused by this foreign body, which was removed through a longitudinal incision in the bowel. The intestinal wound was closed with a double row of sutures and the abdominal incision united in the usual way. The patient died eight hours after the operation. The mass removed was sufficiently large to occupy the entire lumen of the intestine, and on section showed in its centre a crystalline round nucleus of cholesterin, about the size of a small walnut, around which, in concentric layers, was a brownish crust varying in thickness from one fourth to one-half centimetre. The concretion had undoubtedly formed during the passage of the gall stone.

An enterolith of similar size and structure has been recently shown me by Dr. Ira Manley, of Markesan, Wisconsin, which he removed post mortem from the lower portion of the small intestine in a woman who had suffered a long time from intestinal obstruction which finally proved fatal.

In Dr. Beam's case the enterolith had become arrested in the ileum just above the ileo cæcal valve, where it gave rise to acute obstruction. Laparo-enterotomy was performed and the patient recovered The foreign body was as large as an English walnut and contained a nucleus as large as a buckshot

As in most specimens heretofore examined the nucleus of the enterolith was composed of a gall stone, the previous history of gall stones should be remembered in considering the nature of the cause of the obstruction, and when a probable diagnosis can be made an operation should not be delayed, as the foreign body may also give rise to perforation

c Entero stenosis —Non malignant cicatricial stenosis of the intestine as a cause of intestinal obstruction, if circumscribed and not multiple, offers one of the most favorable conditions for operative interference In cases of this kind the intestine on the proximal side of the stricture will be found enormously dilated, and this condition will greatly facilitate the detection of the seat of obstruction Typical circular resection should be performed, as it is the only measure which promises a permanent recovery Intestinal stenosis due to malignant disease calls for enterectomy or enterotomy according to the extent of the disease, the condition of the adjacent organs, and the general condition of the patient

d Internal Strangulation —The remaining causes of obstruction, included under the common term "internal strangulation," comprising volvulus, torsion, internal hernia, and strangulation by bands of cicatricial tissue, are the cases which have yielded such a large mortality after abdominal section simply because the operation was delayed for too long a time These cases, when treated by timely interference, ought to furnish the most favorable conditions for abdominal section, as many post-mortem examinations have shown that a slight interference might have saved the patients' lives The existence of intestinal obstruction, acute and chronic, is characterized by a familiar complexus of symptoms, so that *the condition is readily recognized*, but the location of the obstruction is frequently surrounded by many difficulties As pain is not always referred to the seat of obstruction, it constitutes an unimportant symptom in localizing the lesion Meteorism begins on the proximal side of the obstruction, consequently when the obstruction is located below the sigmoid flexure it is first observed over the descending colon, when in the transverse colon, over the ascending colon, and when in the small intestines, over the umbilical region Vomiting of intestinal contents will take place early if the obstruction is located high up, if low down it is a late symptom True stercoraceous vomiting indicates that the obstruction is located somewhere in the large intestines Careful palpation of the abdomen and in doubtful cases manual rectal exploration will constitute important aids in determining the location and nature of the obstructing cause Peritonitis is no contraindication to abdominal section, but the operation should be done, if possible, before this complication appears If after a most thorough and careful examination we are unable to ascertain the seat of the obstruction, the abdomen should be opened in the median line for manual exploration A dilated intestine would indicate that the cause of the obstruction is lower down, while a collapsed bowel can only be expected on the peripheral side of the obstruction If the cause of the obstruction is not found by the usual methods of examination, a systematic search should be made by searching for the ilio cæcal region, and exploring the intestine, inch by inch, in both directions When the patient is still in good condition, and the abdomen is sufficiently soft and yielding for making the examination, localization of the obstruction can usually be made without great difficulty When opposite conditions are presented, when the patient is in a condition of collapse, and the abdomen tympanitic and tense, and the seat of the obstruction cannot be readily located, Nélaton's laparo ileotomy should be performed in the right iliac region, as affording the best chance for the relief of the most urgent and dangerous symptoms When gangrene of the bowel is found, typical circular resection should give way to the formation of a fæcal fistula, if the obstruction is situated sufficiently low down so that such a procedure would not interfere with the maintenance of nutrition should the patient recover from the operation Roser has made the observation that after correcting a volvulus of the sigmoid flexure the torsion of the bowel is liable to return To prevent such an accident he advises that the loop of intestine, when placed in proper position, should be stitched to the abdominal wall by passing a few sutures through the mesentery of the bowel and the parietal peritoneum of the left abdominal wall After disinvagination the same precaution is suggested to prevent reinvagination, the sutures in this instance must fix the lower portion of the *intussusceptum* In conclusion it is appropriate to allude to the following concise and practical rules laid down by J Grey Smith for treating intestinal obstruction by abdominal section

1 Make the incision in the middle line below the umbilicus

2 Fix upon the most dilated or the most congested part of the bowel that lies near the surface, and follow it with the finger as a guide to the seat of obstruction

3 If this fail, draw the intestine out of the wound, carefully covering it, until increase of distension or congestion or both in one of the coils gives an indication that the stricture lies near

4 If there be considerable distension of the intestines, evacuate their contents by incision, and suture the wound Never consider an operation for intestinal obstruction inside the abdomen complete until the bowels are relieved from over distension

5 Be expeditious, for such cases suffer seriously from shock The whole operation ought to be concluded in half an hour

V *Enterectomy* —Circular resection of the intestine has been on trial for a number of years and has been performed for different pathological conditions The results obtained thus far have shown that success depends largely upon the condition of the tissues through which the incisions are made It may be stated as a rule that the healing process progresses most favorably when the resected ends have not undergone inflammatory changes by extension of the pathological conditions which have necessitated the operation. Thus Jaffe has collected 121 cases of enterectomy reported since 1876, of this number thirty six were done for gangrene of the bowel, with 70 per cent of deaths or formation of fæcal fistula, while of the remaining cases done for intestinal wounds, artificial anus, stenosis and tumors, only 44 per cent terminated unfavorably. A study of these cases induced him to decide against the advisability of primary enterectomy for gangrene of the intestines. The same opinion is entertained by von Bergmann. The experience of Billroth also corroborates the opinion, which is now generally accepted, that primary typical enterectomy and enterorrhaphy should not be performed in cases of gangrene resulting from strangulated hernia and internal strangulation.

Of six cases of enterectomy for gangrene operated upon by Billroth only one recovered, and in this case a fæcal fistula formed, which, however, closed without further interference in three weeks. In contrast with these cases were five enterectomies combined with extirpation of tumors affecting the bowel primarily or by extension, of this number three recovered. Clinical experience appears to have definitely settled the course to pursue in cases of gangrene of the bowel, viz. to establish a preternatural anus, and, if this fails to close by more conservative means, to resort to circular resection and suturing after the intestine has been restored to its normal condition. That resection of a large portion of the intestinal canal is not always compatible with health is well illustrated by a case reported by Baum in which he removed 137 ctm. of the small intestines in a woman 40 years of age. The patient was suffering from strangulated femoral hernia. Taxis was only partially successful. On opening the sac an offensive fluid escaped, and a portion of the omentum was removed. Peritonitis followed and a swelling formed in the abdomen above the crural ring, which broke and a fæcal fistula was established. Rapid emaciation ensued, symptoms of strangulation made a laparotomy necessary. A mass of intestines was found twisted into a bunch which could not be unravelled, and as it was surrounded by an abscess it was resected and the ends of the intestine were united with sutures. Patient recovered from operation and improved for several weeks. Six months later progressive emaciation resulted in death.

At the autopsy the seat of resection could not be found, showing how completely and perfectly the intestinal wound had healed. The reporter was of the opinion that death was caused by the great shortening of the intestinal tract.

In 1881 Koeberle resected 2.05 m. of the small intestines in a girl 22 years of age on account of multiple stenoses of the bowel. The patient made a favorable recovery. Kocher has quite recently removed by resection 160 ctm. of small intestine for gangrene in a case of strangulated hernia. The patient recovered and at the time the report was made remained in good health.

Notwithstanding the favorable results obtained by Koeberle and Kocher, Baum's case should indicate to us that there must be a limit to the extent with which resection can be practised with immunity, and that in multiple lesions of the intestines with intervening healthy portions of the bowel it would be preferable to make multiple resections rather than to include a too extensive tract of healthy intestine with the injured or diseased portions. Nearly all operators emphasize the importance of not interfering unnecessarily with the vascular supply of the bowel for fear of causing gangrene of the resected ends. Lauenstein is so strongly convinced of the importance of this precaution that he claims the portion of intestine deprived of its mesentery always becomes gangrenous, consequently in such cases he advises resection of that portion of the intestine rather than trust to the doubtful restoration of the vascular supply by collateral circulation. That it is important to interfere as little as possible with the blood-supply of the resected ends of the bowel no one will doubt, but that in the case of the small intestines this fear has been overestimated, I am convinced. During my experiments on the pancreas last year I often detached the mesentery from the duodenum and upper portion of jejunum in dogs and cats to the extent of from two to twelve inches, and yet gangrene of the bowel occurred only in exceptional cases. The vascular supply was restored either by the denuded surface of the bowel coming in contact and forming adhesions, the detached portion of the intestine assuming the shape of a horse shoe, the open portion corresponding to the cicatrix between the denuded surfaces, or the circulation was restored by the growth of new vessels of large size along the detached portion of the bowel, thus restoring to perfection the mesenteric circulation.

The apprehension of causing gangrene by even a slight interruption of the circulation appears to be well founded in resection of the large intestine. Czerny lost two cases of resection of the colon from gangrene produced by this cause. Lauenstein has found three similar cases recorded where, during operations on the stomach, the transverse colon was detached more or less from the meso colon. We should *a priori* expect a greater liability of gangrene to occur from a limited interruption of the circulation in operations upon the large intestines, from the larger size of the tube, the more scanty blood-supply, and more particularly from the greater difficulties encountered with in the formation of the collateral circulation.

Appended to the report of a successful case of resection of the large intestine for malignant disease, Weir gives the statistics of thirty five cases in which excision of a cancerous intestine was resorted to, and in all cases save one (Schede's) the disease had involved the large intestine. Of this number it is to be noted that of the five cases in which the operation was done during the exhaustion attendant upon the acute obstruction of the bowel, all died from the the shock of the operation, hence this condition is considered by Schede to contra indicate the operation. Of these thirty-three cases there was a mortality of seventeen, or 51.5 per cent, only a little greater than that which results from resection of the large intestine from other causes, and which is given by Maydl at 50 per cent. Aside from the shock ten died within forty-eight hours, in a number of cases the progress was complicated by perforative peritonitis and intestinal fistula. When the latter occurred in the course of an otherwise favorably progressing case, it, as a rule, closed later spontaneously. The perforation was due either to faulty suturing or gangrene of the margin of the wound from detachment of the meso colon. In cases in which the disease returned it took place in three cases in less than one year, in four others between one and two years, in one case over two years, and in Gussenbauer-Martini's case the patient was free from the disease four years after the operation.

The propriety of excision of the colon for malignant disease can therefore not be questioned, the more so if it is found on exploration that the diseased tissue cannot be removed an artificial anus can be established at once with or without excision, which will at any rate remove the symptoms due to obstruction. In two of Billroth's cases, in which the cancer affected the descending colon in one instance, and the sigmoid flexure in the other, so much of the bowel was removed that the ends could not be united, an artificial anus was established, but in both instances a fatal termination followed, in one from collapse, and in the other from septic peritonitis.

VI. *Rupture of Diaphragm.*—Rupture of the diaphragm with escape of the abdominal organs into the cavity of the chest, is a rare accident, but when it does occur it is so uniformly fatal when treated on the expectant plan that in these days of heroic surgery it would appear only reasonable to make an effort to save life by abdominal section, or by an opening into the chest. Either procedure would enable the surgeon to replace the dislocated organs and to close the rupture by suturing. A number of traumatic ruptures of the diaphragm, with protrusion of the abdominal organs into the cavity of the chest, have been reported where, during life, at least a probable diagnosis could be made. All of the cases reported by Butlin and Brinton occurred on the left side. The physical signs on which the diagnosis was based consisted of tympanitic resonance over the side of the chest which contained the prolapsed intestines, with diminution of vocal fremitus and respiratory sounds over an area corresponding to the displacement of the lung. In pneumothorax respiration is abdominal, in traumatic diaphragmatic hernia the respiratory movements are costal, and the abdomen is flattened, conditions which are suggestive of the escape of gas containing intestines into the cavity of the chest. Symptoms of intestinal obstruction indicate strangulation of the protruded bowel. Guttmann regards displacement of the heart, in the absence of other causes, the most reliable diagnostic symptom.

An interesting case of traumatic diaphragmatic hernia which came into Albert's Clinic has been described by von Horoch. The patient received a stab wound immediately under the left scapula. He died two days later with symptoms of asphyxia. The post mortem examination showed that the left lung and diaphragm were punctured by the knife. Through the wound in the diaphragm a portion of the stomach, which had also been opened had escaped into the left pleural cavity. The reporter found three similar cases in literature. He suggested that, in a diaphragmatic hernia, new or old, presenting symptoms of strangulation the chest should be opened sufficiently by rib resection to permit reduction, and to close the wound in the diaphragm in such a manner that the sutures should embrace the serous coat of the stomach. That the recognition of a diaphragmatic hernia is not always an easy task, even after opening the abdominal cavity, is illustrated by Ferran's case. This surgeon performed laparotomy on a young woman who had suffered from symptoms of intestinal obstruction for seven days. The small intestines having been turned out from the abdominal cavity, a careful examination of their whole length and of the cæcum, sigmoid flexure, and rectum was made without the discovery of any cause for the obstruction. The wound was closed and the patient rallied well and showed signs of improvement until next morning, when sudden collapse manifested itself, with speedy death. Post mortem examination showed the existence of a diaphragmatic hernia from laceration, almost the entire transverse colon had escaped into the left pleural cavity, the distended loop of the intestine displacing the heart and the left lung. In the space near the diaphragmatic ring it was noticed that the constriction of the bowel was such as to hardly admit the tip of the index finger. Upon trying to reduce the hernia the ascending gut slipped back into the abdominal cavity without offering any resistance.

The establishment of a route to the diaphragm through the chest is not practicable on account of the frequency with which pleuritic adhesions are found and the greater amount of additional traumatism as compared with abdominal section, hence the latter should be preferred for the relief of diaphragmatic hernia in all cases where a probable diagnosis can be made, and where symptoms of strangulation dictate the propriety and justifiability of the operation. If the injury is produced by a penetrating wound of the chest, the method of operation suggested by von Horoch would be applicable, and in case the symptoms pointed also to visceral injury of the abdominal organs it should be combined with abdominal section.

VII. *The Treatment of Peritonitis by Abdominal Section and Drainage.*—The great fatality of acute diffuse peritonitis under the old or expectant method of treatment gives some support to the recently proposed treatment by incision and drainage. This now common and general surgical procedure has been already applied with great success for the relief of inflammatory lesions of all of the other serous cavities. The first record of an operation performed deliberately on account of acute peritonitis was proposed and executed by Dr. Wiltshire in 1868. About thirteen years ago Mr. Lawson Tait followed Wiltshire's example. Since that time he affirms he has never allowed a patient to die of peritonitis without opening the abdomen whenever he was permitted to perform the operation. He has performed abdominal section forty four times on account of the presence of peritonitis and the operation has been completely successful in forty-one cases

As peritonitis is usually only a secondary manifestation of an antecedent primary cause, it appears plain that the treatment by surgical interference will be most successful in cases where the disease has not become diffuse, and where the original cause can be removed Cases of this kind are represented by

1 *Perforative Peritonitis* —In order to recognize this condition early when most amenable to surgical treatment, it is important to allude to some of the most prominent early symptoms Observation of a number of cases of peritonitis following perforation has satisfied Ebstein that the abdominal walls usually remain tense and rigid without distension, the abdomen may be flat and even depressed The contracted condition of the abdominal muscles remains for a variable length of time, when it is followed by distension with or without rigidity The contraction of the muscles diminish as the paralytic symptoms increase Ebstein asserts that the absence of the normal liver dulness cannot be depended upon as a pathognomonic symptom of perforative peritonitis He mentions a case of perforation of the stomach in which no gas had escaped into the peritoneal cavity to produce displacement of the liver The liver also remains in its normal position in cases where fluid escapes into the peritoneal cavity, and where the organ has formed adhesions by previous attacks of perihepatitis The absence of vomiting in a case of peritonitis or its sudden cessation in the beginning of an acute attack indicates, when the patient is conscious, that either perforation of the stomach has followed peritonitis Vomiting is not present when perforation has taken place into the peritoneal cavity or the bursa omentalis

A case reported by Ebstein appears to prove that vomiting again may take place in cases of perforation of the stomach as soon as the opening in the stomach has become closed by adhesions to neighboring organs Perforation of the appendix vermiformis, bursting of a pyo salpinx or pelvic abscess furnish familiar illustrations of perforative peritonitis, where a timely laparotomy would hold out encouraging prospects for a favorable recovery by operative treatment Mr Treves has also shown that nearly all abscesses about the cæcum are in reality intraperitoneal, so that in opening these abscesses the surgeon always has to deal with the peritoneal cavity As these abscesses are generally circumscribed by adhesions, a failure to open them in time may result again in perforation and secondary diffuse peritonitis

Mr Howard Marsh relates a successful case of abdominal section for suppurative peritonitis produced by the bursting of an abscess in the mesentery around old tubercular glands into the peritoneal cavity The patient was a young man 19 years of age, who had suffered some time with symptoms of diffuse peritonitis The abdomen was found exceedingly tender and distended The incision was made over the most prominent portion of the swelling on the outside of the linea semilunaris and gave exit to two or three pints of fœtid pus The distended coils of small intestines could be felt through the wound The cavity was washed out with a weak solution of carbolic acid and drained The patient made a slow but good recovery

J W Taylor reports an interesting case of acute hydronephrosis where rupture of the cyst into the peritoneal cavity produced great collapse, and where a timely laparotomy prevented a fatal peritonitis The patient was a girl 15 years of age, who was attacked suddenly with pain in the left lumbar region, and vomiting, followed by the appearance of a fluctuating tumor in the same side, which was at the time diagnosticated as acute hydrops of the left kidney She suddenly became collapsed, which with other grave symptoms indicated rupture of the cyst and extravasation of its contents into the peritoneal cavity The abdomen was opened at once through the median line The abdominal cavity was thoroughly cleansed and the remaining portions of the cyst contents were removed by puncturing with the trocar The cyst wall was sewed to the abdominal wound, and against all expectations the patient rallied and improved In a few days the cyst refilled, which necessitated a second incision and drainage by means of a glass drain Urine was discharged through the wound, but the patient improved As no calculus could be found by an exploration of the interior of the cyst, it was believed that the left ureter had become completely obliterated, which would necessitate a nephrectomy at some future time

That even perforation of a large pelvic abscess into the peritoneal cavity may terminate in recovery by timely and well applied surgical treatment is well illustrated by a case reported by Mr Treves, in a paper read before the Royal Medico-Chirurgical Society, March 10, 1885 The patient was a female 21 years of age, who had suffered for three months from chronic pelvic peritonitis, following severe gonorrhœa During this time a large purulent collection, containing very offensive matter, had formed near the pelvic brim The acute symptoms were due to the bursting of the abscess and extravasation of its contents into the general peritoneal cavity On the following day the abdomen was opened under antiseptic precautions, the patient at the time being in a very critical condition The peritoneum and intestines showed signs of diffuse recent inflammation The peritoneal cavity contained a quantity of semi-opaque fluid, mixed with flakes of lymph and pus The whole peritoneal cavity was washed out with many quarts of water, and a drain introduced The symptoms improved promptly, and the patient recovered

These cases furnish abundant proof that in cases of perforative peritonitis, irrespective of the nature of the material which has been extravasated, our only resource which affords any encouragement whatever, is abdominal section In cases of this kind it is important to search for the cause of the peritonitis, and to treat the conditions, if necessary, by operative measures, the toilet of the peritoneal cavity can be most effectively accomplished by copiously flushing with warm sterilized water rendered slightly alkaline by the addition of chloride of sodium As in these cases we can never be certain that the peritoneal cavity has been rendered perfectly aseptic, it is always *advisable to resort to drainage.* We have every reason to hope that in the future perforation of the stomach or intestines will be treated by abdominal section, as it holds out the only possibility of preventing death from the consecutive peritonitis by removing the extravasation and preventing further escape by closing the rupture. In such instances it is essential to search for the perforation, which must be treated in the same manner as intestinal wounds, after which the peritoneal cavity is cleansed, drained, and the wound closed.

The successful local treatment of tuberculosis has recently been extended to

2. *Tubercular Peritonitis.*—Koenig has called attention to the difficulty met with in the diagnosis of circumscribed ascites following tuberculosis of the peritoneum, and other fluctuating tumors of the abdominal cavity. He refers particularly to the peculiar kind of fluctuation found in these cases as an almost pathognomonic evidence. The fluctuating waves are large and are conveyed from one wall to the other, and the undulations are imparted to the abdominal wall.

Von Holst reports a case of tuberculosis of the peritoneum which was remarkable from the fact that on palpation over the abdomen dulness and fluctuation were felt as distinctly as in ascites, which on post-mortem was not found to exist. The deception was due to firm adhesions which had formed between the omentum and intestines.

Not infrequently one or more smaller swellings are felt in the vicinity of the large one. Clinically it has been shown that the swelling may decrease in size for a time or that it may remain stationary for a considerable length of time. Tuberculosis of the peritoneum is most frequently found as a complication of tuberculosis of other organs, but sometimes it occurs as a primary lesion in persons without any hereditary taint.

Bucquoy observed a case which had its origin in a cheesy tubercular degeneration of the ovaries. Koenig reports four cases of abdominal section performed for tuberculosis of the peritoneum. The patients were all females. One of them remained well two years after the operation. The exudation was usually found immediately beneath the anterior abdominal wall, the intestines, uterus and ovaries being pushed backward. The cyst wall was always found lined with a thick fibrinous wall which presented all the microscopical appearances characteristic of tuberculosis. After incision the fluid was evacuated, the sac washed out with carbolized water, and the inner surface of the cyst wall dusted with iodoform. In the case which remained well after two years the cavity was drained, and the patient left the hospital with the drainage tube. The fistulous opening healed subsequently. Koenig is of the opinion that in some cases of primary tuberculosis of the peritoneum a radical cure can be effected by laparotomy and local treatment.

3. *Chronic Peritonitis with effusion.*—The most favorable pathological condition of the peritoneum for surgical treatment is chronic inflammation with serous effusion. Abdominal section with drainage relieves the pressure promptly, and thus favors reabsorption and the restoration of the physiological balance between secretion and absorption. Savage reports that he has performed laparotomy in six cases of subacute peritonitis attended by more or less effusion, and all of his patients recovered.

4. *Ascites.*—Dr. A. G. Caille, of New York, has recently called the attention of the Academy of Medicine to the value of permanent drainage in ascites. He related two cases of cirrhosis of the liver with marked ascites, in which he had inserted a drainage tube into the peritoneal cavity at the linea alba, with the result of affording great relief of all the distressing and dangerous symptoms, and probably prolonging life for a considerable period. In one case an autopsy could not be secured, but in the other one was made, when it was found that there was not the slightest indication of peritonitis at the point where the fistula was made. If permanent drainage of the peritoneal cavity is possible without causing inflammation, it is obvious that the treatment of ascites by drastic cathartics, diuretics, and other debilitating measures should be abandoned in favor of this surgical procedure.

(*To be concluded.*)

MEDICAL PROGRESS

A HYPODERMIC SOLUTION OF CAFFEINE.—TANRET (*Repert. de Pharm.*, March, 1886), recommends this formula:

Caffeine	37 grains.
Sodium benzoate	45 "
Distilled water	10 c. c.

Mix the benzoate and the caffeine in a mortar, add the water, and filter.

—*Am. Journ. of Pharm.*, May, 1886.

THE INCOMPATIBILITY OF CALOMEL AND BROMIDE OF POTASSIUM.—VIGIER (*Gaz. Hebdom. de Med. et de Chir.*, May 6, 1886), remarks that calomel is decomposed on the addition of potassium bromide, although more slowly than when the iodide is added. Nobody he thinks, would give the two drugs within five or six hours of each other, but it might happen, for example, in a case of infantile convulsions, that, two practitioners being called in quick succession, the second one might order one of these drugs after the other had been given by the advice of the first one. He gives the caution, therefore, that in such cases their incompatibility should be borne in mind. —*New York Medical Journal*, May 22, 1886.

THE INJECTION OF ANATOMICAL PREPARATIONS.—A. K. BJELOUSSOW recommends (*Archiv f. Anatomie*, November, 1885) for this purpose a mixture of borax and gum arabic. The mass is injected cold, and is then fixed by immersion in spirits. By treating the preparation with glycerine the injection is rendered transparent, and it can be removed at any time by acting upon it with dilute acetic acid.—*The American Journal of the Medical Sciences*, April, 1886.

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible, remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, MAY 29, 1886

CORRECT LIST OF THE OFFICERS OF THE PRELIMINARY ORGANIZATION OF THE NINTH INTERNATIONAL MEDICAL CONGRESS

As several of the leading medical journals have recently attempted to give their readers a list of the general officers of the Congress and the Presidents of the Sections without taking the trouble to secure correctness, we think it proper to reproduce the general officers of the Congress, the members of the Executive Committee and of the Local Committee of Arrangements at Washington, and the Presidents of the Sections, as arranged by the Executive Committee at its meeting, on the 3d and 4th inst It will correct the errors published by others, and will be useful for reference by correspondents

FOR GENERAL OFFICERS OF THE CONGRESS

PRESIDENT

N S Davis, M D , LL D , Chicago, Ill

VICE PRESIDENTS

W O Baldwin, M D , Montgomery, Ala
Wm Brodie, M D , Detroit, Mich
W W Dawson, M D , Cincinnati, O
J A Grant, M D , Ottawa, Canada
E M Moore, M D , Rochester, N Y
Tobias G Richardson, M D , New Orleans, La
Lewis A Sayre, M D , New York, N Y
J M Toner, M D , Washington, D C
The President of the American Medical Association
The Surgeon General of the United States Army
The Surgeon General of the United States Navy
The Supervising Surgeon General of the United States Marine Hospital Service

SECRETARY GENERAL

John B Hamilton, M D , Washington, D C

TREASURER

E S F Arnold, M D , New York, N Y

CHAIRMAN OF THE FINANCE COMMITTEE

Richard J Dunglison, M D , Philadelphia, Pa

CHAIRMAN OF THE EXECUTIVE COMMITTEE

Henry H Smith, M D , Philadelphia Pa

CHAIRMAN OF THE LOCAL COMMITTEE OF ARRANGEMENTS

A Y P Garnett, M D , Washington, D C

EXECUTIVE COMMITTEE OF THE CONGRESS

Henry H Smith, M D , Chairman, Philadelphia, Pa
N S Davis, M D , LL D , Chicago, Ill
John B Hamilton, M D , Washington, D C
E S F Arnold, M D , New York, N Y
Richard J Dunglison, M D , Philadelphia, Pa
A Y P Garnett, M D , Washington, D C
F S Dennis, M D , New York, N Y
Abram B Arnold, M D , Baltimore, Md
Wm T Briggs, M D , Nashville, Tenn
DeLaskie Miller, M D , Chicago, Ill
James F Harrison, M D , University Virginia, Va
F H Terrill, M D , San Francisco, Cal
Wm H Pancoast, M D , Philadelphia, Pa
J H Callender, M D , Nashville, Tenn
A B Palmer, M D , LL D , Ann Arbor, Mich
J Lewis Smith, M D , New York, N Y
E Williams, M D , Cincinnati, Ohio
S J Jones, M D , LL D , Chicago, Ill
Wm H Daly, M D , Pittsburgh, Pa
A R Robinson, M D , New York, N Y
Joseph Jones, M D , New Orleans, La
Albert L Gihon, M D , U S N , Washington, D C
John P Gray, M D , LL D , Utica, N Y
Jonathan Taft, M D , Cincinnati, O

LOCAL COMMITTEE OF RECEPTION AND ARRANGEMENT

A Y P Garnett, M D , Washington, D C , Ch'n
The Surgeon General of the U S Army
The Surgeon General of the U S Navy
The Supervising Surgeon General of the U S Marine Hospital Service
J H Baxter, M D , U S Army
J M Toner, M D , Washington, D C
N S Lincoln, M D , Washington, D C
C H A Kleinschmidt, M D , Washington, D C , and forty other members in the District of Columbia

PRESIDENTS OF THE SECTIONS

General Medicine —Abram B Arnold, M D , Professor of Clinical Medicine, Baltimore, Md

General Surgery—William T Briggs, M D, Professor of Surgery, Nashville, Tenn

Military and Naval Medicine and Surgery—Henry H Smith, M D, formerly Professor of Surgery and Surgeon-General of Pennsylvania, Philadelphia, Pa

Obstetrics—DeLaskie Miller, Ph D, M D, Professor of Obstetrics, Chicago, Ill

Gynæcology—James F Harrison, M D, Professor of Medicine, Obstetrics and Medical Jurisprudence, University of Virginia

Therapeutics and Materia Medica—F H Terrill, M D, Professor of Therapeutics, San Francisco, Cal

Anatomy—William H Pancoast, M D, Professor of General, Descriptive, and Surgical Anatomy, Philadelphia, Pa

Physiology—J H Callender, M D, Professor of Physiology, Nashville, Tenn

Pathology—A B Palmer, M D, LL D, Professor of Pathology and Practice of Medicine, Ann Arbor, Michigan

Diseases of Children—J Lewis Smith, M D, Professor of Diseases of Children, New York, N Y

Ophthalmology—E Williams, M D, Professor of Ophthalmology and Otology, Cincinnati, Ohio

Otology—S J Jones, M D, LL D, Professor of Ophthalmology and Otology, Chicago, Ill

Laryngology—William H Daly, M D, Pittsburgh, Pa

Dermatology and Syphilis—A R Robinson, M D, Lecturer on Dermatology and Syphilis, New York, N Y

Public and International Hygiene—Joseph Jones, M D, Professor of Chemistry and Clinical Medicine, New Orleans, La

Collective Investigation, Vital Statistics and Climatology—Albert L Gihon, U S N, Washington, D C

Psychological Medicine and Nervous Diseases—John P Gray, M D, LL D, Professor of Psychological Medicine and Medical Jurisprudence, Utica, N Y

Dental and Oral Surgery—Jonathan Taft, M D, Professor of Dental and Oral Surgery, Cincinnati, O

MILITARY DRILL IN PHYSICAL TRAINING

At the meeting of the Section for Clinical Medicine of the Suffolk District Medical Society on April 14, Dr Charles F Withington read a paper on "Military Drill as a means of Physical Training for Boys" For some years the military drill has been the only physical exercise provided for the boys of the public schools of Boston, and the result seems to have been in every way satisfactory All boys over 13 years of age are required, to drill except when furnished with a physician's certificate of disability With those familiar with the military drill there can be no question as to its value as a physical exercise, and of its good effects, unless too severe, in giving symmetry to the muscular and osseous systems Even the drill without arms has a marked effect upon limb and chest measurement, as shown by Fetzer several years ago Dr Withington's paper only partially covers the ground of the subject, and he concludes, on insufficient data it seems, that the drill is not beneficial, but prejudicial The overwhelming mass of testimony is on the other side Dr Withington goes so far as to claim that the drill will cause asymmetry, but a vast amount of positive evidence must be brought forward before a verdict of "guilty" can be reasonably rendered On the other side, in favor of the drill in school, is the testimony of the Boston Committee, given in the report of 1868, signed by J Baxter Upham, Calvin Page, S A Green, and Ezra Palmer, the report of the same Committee in 1873, signed by Upham, Edson, Shattuck, and Woods, the report of Mr Philbrick in 1874, the report of the Boston Committee in 1875, of the Head-Master of the Roxbury School in 1875, of the Head-Master of the Dorchester School, of General W T Sherman, in writing of the Michigan Military Academy, of General J M Schofield, and of Drs John Moran and Henry P Bowditch, who wrote, in 1880, in the Annual Report of the School Board of Boston "The establishment of Military Drill is one of the few provisions made by the School Board for the physical training of the pupils under its charge, and no one who has observed the soldierly bearing of the members of our school battalion, can have any doubt of its value as a means of securing a full and symmetrical development of the physique"

Of course it would not be a difficult matter to select from a school or army regiment perhaps one person who has some asymmetry But this, so far from showing that the drill caused the asymmetry, only seems to show that the asymmetry was produced in spite of the drill, or that is was probably present to a larger extent before drill exercise was commenced Professor Sargent is of the opinion that lateral curvature is often caused by the drill His opinion is based on the examination of Havard students and members of the Young Men's Christian Union Before receiving this opinion as one of value, however, it is necessary to ask whether those young men were in the habit of playing tenpins, which, of all games, is probably most productive of asymmetry It is doubtless true, also, that in some schools the guns are too heavy for the pupils, an evil which is very easily avoided or remedied

It seems that if the small amount of drill used in schools will cause curvature and asymmetry, the very great amount in use at West Point and Military Schools generally, and in regiments at army posts would bring about such a state of asymmetry that the whole United States Army would be one sided, and present a uniform lateral curvature And if the normal effect of the drill is to cause asymmetry it seems that the care with which cadets are selected is not only useless but absurd But as, on the suggestion of Dr Henry I Bowditch, the discussion on this subject was adjourned for a future meeting of the Section, we may leave the matter for the present, and hope to present the subject more fully in a future issue of THE JOURNAL

NOTICE TO NEW MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION —We have received letters from several who became members of the Association for the first time at the meeting in St Louis, expressing disappointment that they have not begun to receive THE JOURNAL immediately after the adjournment We would remind all such that we cannot know at this office what new members are entitled to THE JOURNAL until the Treasurer has had time to go over the entire registration list and to furnish us with the names and addresses of all new members, which usually requires from one to two weeks As soon as we receive the list from the Treasurer, the names are added to the mail list, and the journals are sent

AMERICAN MEDICAL ASSOCIATION

Thirty-seventh Annual Meeting, held at St Louis, May 4, 5, 6 and 7, 1886

OFFICIAL REPORT

The Association assembled in the Exposition Building at 11 A M, May 4, 1886, and was called to order by DR LEGRAND ATWOOD, Chairman of the Committee of Arrangements The President, Wm Brodie, M D, of Detroit, Vice Presidents, Drs S Logan, La, A Y P Garnett, D C, Chas Alexander, Wis, the Permanent Secretary, Dr Wm B Atkinson, Philadelphia, the Assistant Secretary, Dr Wm C Glasgow, Mo, the Treasurer, Dr R J Dunglison, Philadelphia, and the Librarian, Dr C H A Kleinschmidt, D C, occupied their respective positions

Prayer was offered by Rev M Schuyler, D D, of Missouri

The CHAIRMAN, DR ATWOOD, introduced HON D R FRANCIS, Mayor of St Louis, who welcomed the Association as follows

THE MAYOR'S ADDRESS

"It is highly appropriate that the American Medical Association should hold its annual Convention in the healthiest City upon the American Continent As the official representative of the city, I extend to you a cordial greeting The Municipal Government bids you welcome, and says to you, 'If you seek a healthy city, look around you' Our people have anticipated your coming with pleasure, and, with their characteristic hospitality, have prepared for your entertainment Your brethren of the Association have heralded your advent with pride and exultation, and have made every provision for your pleasure and enjoyment The home of McDowell, Pope, Hodgen, and many other honored members of your profession, welcomes you for your own sake The calling which you have selected is a noble one The science of medicine has been revered from all ages, and its expounders have been highly and worthily esteemed The art of curing disease is co ordinate with the accidents and infirmities to which mankind is liable, and some rude forms of applying the art of healing were practiced by the most barbarous of people The early history of medicine is so mixed up with mythology that it is difficult to distinguish truth from fiction The idea was prevalent in the early ages that disease was a punishment inflicted by a high power, and consequently its treatment was relegated to priests, and was attended with superstitious rites To what extent that idea prevails at the present day, and how far those practices have been handed down from the past, it is difficult to say, but it is none the less true that he who ministers to the physical wants of man is by many held in as high esteem as he who ministers to his spiritual wants The history of medicine is the history of science, religion, society, progress No science is more worthy the attention of mankind, and no nobler study can be engaged in No brighter intellects have adorned history than those which grace the rolls of your profession 'Peace hath her victories not less renowned than war' Many of the discoveries of your predecessors have been in advance of the age in which they lived, and have proved of untold value to the human race Chiron, with his pupil Æsculapius, Hypocrates the father of rational medicine, Praxagoras, the discoverer of the relations between the pulse and the general condition of the system, the great Galen, whose doctrines were implicitly accepted for twelve centuries, and until Esalius, the anatomist, joined issue with them, Harvey, the discoverer of the circulation of the blood, Haller, the physiologist, Jenner, with his discovery of vaccine virus, are a few of the immortal names which have honored your profession, and which you delight to honor For the sake of your profession, its achievements, and its objects do we welcome you, and not alone for that That is reflected light, and although soft, pleasant, and to a high degree illuminating, it can not long keep step with the rapid march of the present day To have done is to hang out of fashion As your brethren have in the past kept pace with the spirit of their times, so in the progressive age of to day is your profession abreast with the vanguard of science The world is almost daily electrified by the discovery of some important principle or its application in some new branch, and in no profession have these occurred more frequently than in yours. In no age of civilization or society have the principles of your science been so generally and so successfully taught, and put into effective practice as in the present. Hygiene is to-day more intelligently observed than ever before, and, thanks to your thoughtfulness and advice, it is being enforced in the construction of our abodes, and practiced in the routine of our daily life. You are continually discovering and disseminating information which preserves health, prevents suffering and prolongs life. For your own sakes, therefore, are you thrice welcome. We recognize among you many whose names are already prominent in the world of science, and we trust that this Convention may result in bringing forward many others. These annual assemblages of the medical profession can not but be productive of much good. Besides promoting acquaintanceship and cultivating friendship, it opens up new fields of research and diverts thought into new channels. The ramifications of medicine are so extensive, and its possibilities are so great that specialties are daily becoming more numerous. Occasions like this are valuable to you, and of course are appreciated and taken advantage of. I cordially welcome you here and trust that your deliberations may be harmonious and satisfactory, beneficent to your association, promotive of science and conducive to the good of the community."

Dr. Atwood on behalf of the profession, delivered an address of

WELCOME FROM THE PROFESSION

Dr. Atwood said, after the excellent speech of the Mayor he felt it difficult to add anything on behalf of the medical men of St. Louis, His Worship having practically covered the whole ground. The local profession had made public in every way the fact that the association intended honoring the city by meeting in it, and the citizens had united with them in a desire to make their guests as comfortable as possible. There was something exceedingly appropriate in the association visiting St. Louis during the presidency of Dr. Brodie, seeing that just thirty-two years ago that doctor was admitted to membership at that city. It It was also highly apropriate because St. Louis had witnessed the life labor of men distinguished in the medical profession, whose reputation had become national, and in some instances cosmopolitan. Here had labored Beaumont, whose profound physiological researches had resulted in so much, and also Joseph Nash McDowell, nephew of the great Ephriam McDowell, whose name was inscribed in the annals of medicine never to be erased, by his illustrious discovery and performance of ovariotomy, a man who had saved the lives of thousands of women by demonstrating the propriety of this operation. Too much was given to the pæan of those who destroyed life, but a man who had made a discovery such as this had done more toward ameliorating the condition of mankind than any General whose glories were sung. J. N. McDowell opened the first medical school west of the Mississippi, and he (Dr. Atwood), although he did not look as old as he was, was present on that occasion. Here also lived and labored John S. Moore, once Vice-President of the Association, and the first to deliver a lecture west of the Mississippi, Charles A. Pope, who during his life was first surgeon and first gentleman of the Mississippi Valley, and others who had conferred unmeasurable benefits on the profession and the public. If the spirits of the illustrious dead are permitted to revisit the scenes loved by them on earth, there were present in their midst the spirits of these and of other illustrous surgeons who had joined them on the other shore. If so, he had no doubt their advice to members of the association would be to preserve the National Code of Ethics as the Palladium of their honor and to regard the open enemy of it as a Pandora with her box open, and the secret enemy as a serpent which, with its deadly wiles, had crept into Paradise. There was nothing left for him to do but to extend ten thousand welcomes to the members of the Association.

Ex-Presidents Drs. N. S. Davis, J. M. Toner, D. W. Yandell, T. G. Richardson, H. F. Campbell, and P. O. Hooper, by invitation, were seated upon the platform.

The programme and other arrangements for the session were read and approved.

It was announced that protests had been entered against the delegates from the Philadelphia County Medical Society, the New York Academy of Medicine, the Tri-State Medical Society, the Mississippi Valley Medical Association, and the Davidson County Medical Society.

DR. D. J. ROBERTS, of Tenn., protested against the Tennessee State Medical Society.

THE CHAIRMAN offered a list of *Members by Invitation*, who were, on motion, elected.

VICE-PRESIDENT DR. S. LOGAN then took the Chair, and THE PRESIDENT, DR. WM. BRODIE, delivered the *Annual Address*. (See p. 505, JOURNAL of May 8.)

On motion of DR. J. H. MURPHY, of Minnesota, the thanks of the Association were tendered the President for his able address, and the special points in it were referred to a committee to be appointed by the Chair.

A memorial from the Women's Christian Temperance Union was offered, and on motion referred to the Section on State Medicine.

DR. J. S. LYNCH, of Baltimore, presented and read the report of the Committee on

PRELIMINARY ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS OF 1887

Your committee on the preliminary organization of the Ninth International Medical Congress, to be held in Washington, D. C., in 1887, have the honor to respectfully report

That your committee, in accordance with your instructions, after mature deliberation, adopted the necessary rules for the organization, nominated general officers for the Congress and its Sections and a local committee of arrangements at Washington, with power to increase its membership, and in accordance with Rule 10, as heretofore published in THE JOURNAL of the Association, they have constituted the proposed officers of the Congress, and the Presidents of its Sections, as an Executive Committee, for the further prosecution of the work of organization, and your committee herewith submit a list of the members of the organization

OFFICERS OF THE CONGRESS

President—Nathan S Davis, of Chicago

Vice-Presidents—Wm O Baldwin, of Alabama, William Brodie, of Michigan, W W Dawson, of Ohio, J A Grant, of Ottawa, Canada, E M Moore, of New York, Tobias G Richardson, of Louisiana, Lewis A Sayre, of New York, J M Toner, of Washington, D C, The President of the American Medical Association, The Surgeon-General U S Army, The Surgeon General U S Navy, The Supervising Surgeon-General U S Marine Hospital Service

Secretary General—John B Hamilton, of Washington, D C

Treasurer—E S F Arnold, of New York

Chairman of the Finance Committee—Richard J Dunglison, of Philadelphia, Pa

PRESIDENTS OF SECTIONS

General Medicine—A B Arnold, of Baltimore, Md

General Surgery—Wm T Briggs, of Nashville, Tenn

Military and Naval Surgery—Henry F Smith, of Philadelphia, Pa.

Obstetrics—De Laskie Miller, of Chicago, Ill

Gynæcology—James F Harrison, of the University of Virginia.

Therapeutics and Materia Medica—F H Terrill, of San Francisco, Cal

Anatomy—Wm H Pancoast, of Philadelphia, Pa

Physiology—J H Callender, of Nashville, Tenn

Pathology—A B Palmer, of the University of Michigan

Diseases of Children—J Lewis Smith, of New York, N Y

Ophthalmology—E Williams, of Cincinnati, Ohio

Otology—S J Jones, of Chicago, Ill

Laryngology—W H Daly, of Pittsburgh, Pa

Dermatology and Syphilis—A R Robinson, of New York City

Public and International Hygiene—Joseph Jones, of New Orleans, La

Collective Investigation, Vital Statistics and Climatology—Albert L Gihon, U S Navy, Washington, D C

Psychological Medicine and Nervous Diseases—John P Gray, of Utica, N Y

Dental and Oral Surgery—Jonathan Taft, of Cincinnati, O

On motion of Dr A L Gihon, U S N, it was *unanimously* accepted and adopted

Dr Henry H Smith, Pa, offered a motion to reconsider this vote

On motion of Dr A L Gihon, this motion was laid on the table

AMENDMENTS TO THE CONSTITUTION

being in order, Dr N S Davis brought up that relating to Officers of Sections

Dr D J Roberts moved to amend it by substituting "first day of the session, at 3 P M"

A motion by Dr E Smith, of Mich, to lay it on the table, was lost

A motion by Dr W Bishop, of Pa, to postpone it until after the report of the Committee on the President's Address, was declared out of order, the point of order being raised by Dr I N Quimby, of N J, that it was not germane to the subject

A number of other amendments to the amendment were proposed and discussed by Drs E Smith, Dudley S Reynolds, F Staples, J H Murphy, J B Murdoch, W Allport, and others, when the amendment was adopted as follows, by a large majority

Amendment—"Strike out the whole of the third paragraph of Section 2 of the By-laws, and substitute the following On the second day of each annual meeting each Section shall nominate its own officers to serve for the next ensuing year, their duties to commence with the close of the annual meeting at which they are nominated and to continue until their successors are appointed"

A division being called for, a vote was again had, and the President decided that it had been adopted

The various delegates were requested to select their representatives for the Committee on Nominations, and to report to the Permanent Secretary in the morning On motion the Association adjourned until Wednesday at 10 A M

WEDNESDAY, MAY 5—SECOND DAY

THE PRESIDENT, DR WM BRODIE, called the Association to order at 10 A M He announced as the

SPECIAL COMMITTEE ON THE PRESIDENT'S ADDRESS,

Drs J H Murphy, of Minn, A L Gihon, U S N, and Alonzo Garcelon, of Maine

The Chairman of the Committee of Arrangements offered the names of some members by invitation, who were on motion elected

The Permanent Secretary then read the names of the

NOMINATING COMMITTEE

Ark, P O Hooper, Col, J W Graham, Conn, W C Wile, D of C, J W Bulkley, Fla, T O Summers, Ga, J W Bailey, Ill, J E Owens, Ind, T B Harvey, Iowa, W Watson, Kan, C V Mottram, Ky, W H Wathen, La., Jos Jones, Me, Chas E Webster, Mass, E W Cushing, Md, G H Rohe, Minn, H H Kimball, Mich, H O Walker, Miss, P W Rowland, Mo, J F Dudley, Neb, W M Knapp, N J, E L B Godfrey, N Y, E S F Arnold, N Ca, C J O'Hagan, Ohio, H J Sharp, Pa, J C Lange, R I, H R Storer, S Ca, R A Kinloch, Tenn, Duncan Eve, Texas, J F Y Paine, Ver, A T Woodward, Va, G B McCorkle, W Va, G W Baird, Wis, W T Galloway, U S A, Ely McClellan, U S N, J C Speir, U S M Hosp, •W Wyman, Dakota Ter, J B Van-Velsor, New Mexico, W R Tipton

It was announced that they would meet at 11 A M

Dr Nicholas Senn, Chairman of the Section on Anatomy and Surgery, then delivered the *Address in Surgery* (See p 589)

A protest was made by a delegate from Tennessee against Dr Eve serving on the Nominating Committee from Tennessee, as the Society from which he came had been protested against

Dr S C Gordon, of Portland, Me, Chairman of the Section on Obstetrics and Diseases of Women, then delivered the *Address in Obstetrics* (See p 561, Journal of May 22)

Vice-President A Y P Garnett then took the Chair, and Dr A L Gihon, Chairman of the

RUSH MONUMENT COMMITTEE,

read the report

Your Committee begs to report that in obedience to your resolutions on the 30th of April, 1885, at the thirty-sixth annual meeting of the Association at New Orleans, La, the Rush Monument Committee has been instituted by the appointment of one member from each of the States, Territories and National services represented in the Association, and the Standing Committee thus organized will forthwith proceed upon the duty intrusted to it by the Association, to wit the collection of funds, etc, for the erection of a statue to Dr Benjamin Rush, in the City of Washington, by the members of the profession of medicine in the United States

Your Committee, appointed at Washington, in 1884, by the lamented Dr Austin Flint, in its report presented at New Orleans, enumerated the monuments which have already been erected at the National Capital in commemoration of the men who have contributed to the National renown, and stated that appropriations had also been made by Congress for statues to Lafayette and Garfield Since that report, and doubtless in consequence of it, various public bodies have proposed similar memorials to their great leaders The Church, already represented in the person of Martin Luther, is to have its statue to Wesley The deaf mutes have taken action toward the erection of a monument on their beautiful Kendal Green to their eminent teacher, Gallaudet Philanthropy is to have its marbly effigy of Peabody, and the intrepid explorers, who have lifted the curtains of dense jungle and rugged mountains upon new lands, are to be personated in him who, greatest of them all, led the way to this New World, while Grant and McClellan, Hancock and Shields, McDonough and Barry, are to be added to the already long array of Presidents and military and naval heroes

With statesmen, rulers, soldiers and sailors, the scientist and the philanthropist, the discoverer and the teacher, the jurist and the divine, all given prominence among the adornments of this beautiful Capital City, no further time should be lost by the medical profession in completing its enduring testimonial of one who was not only a great physician and teacher of medicine, philosopher, philanthropist, and accomplished writer, but a fearless patriot and founder of the Republic, a signer of the Declaration of Independence, an officer of the army of the Revolution, and one of the authors of that Federal Constitution under which we now happily live

With this announcement, the Rush Monument Committee will at once undertake the work of obtaining subscriptions, which have been limited by resolution of the Association to one dollar from each member of the profession of medicine in the United States, and receiving such voluntary donations as may be made by persons interested in this great undertaking

All of which is respectfully submitted

For the Committee
Albert L Gihon, M D, Ch'n
George H Rohe, M D, Sec'y
J M Toner, M D, Treasurer

I am directed by the Rush Monument Committee to report to the Association the election of Dr Geo H Rohé, of Maryland, to be Secretary, and of Dr Joseph M Toner, of the District of Columbia, to be Treasurer

In accordance with the instituting resolution the following members, resident in and near Washington, constitute, with the Chairman, an Executive Committee

Albert L Gihon, U S N, Chairman, George H Rohe, Baltimore, Md, Joseph M Toner, Washington, D C, Henry H Smith, Philadelphia, Pa, Chas Smart, U S A, Washington, Preston H Bailhache, U S M H Service, Baltimore, Samuel J Jones, Chicago, Ill

I am also directed to report that the Committee has adopted rules for the collection and responsible expenditure of the funds collected for the purpose of the monument, and has determined upon Riggs' Bank, at Washington, as the depository of said funds

Respectfully submitted

Albert L Gihon, Chairman

On motion, the report was accepted

Dr I N Quimby called up the amendment to the amendment to the By laws creating a

SECTION ON MEDICAL JURISPRUDENCE,

and offered a motion that it be adopted

After some debate it was adopted

The Committee of Arrangements presented a number of invitations, which were read and accepted

A communication from the Texas State Medical Association was received and ordered on file

Dr W Bishop, of Pa, moved that the President be requested to announce, with the title of a paper and the name of its author, the time allowed for its reading Rejected

An invitation to meet the American Climatological Association next week in Philadelphia was read

On motion of Dr N S Davis the Association adjourned until Thursday morning

---

Thursday, May 6 —Third Day

The President called the Association to order at 10 A M, prayer being offered by Rev R G Brank, D D

The Committee of Arrangements reported invitations to visit places of interest

The Committee on Nominations then nominated the following

OFFICERS FOR 1887

President—Dr E H Gregory, St Louis, Mo

1st Vice President—Dr E H Miller, of Stillwater, Minn

2d Vice President—Dr W B Welch, of Boonesboro, Ark

3d Vice President—Dr William H Pancoast, of Philadelphia

4th Vice President—Dr William C Wile, of New London, Conn

Permanent Secretary—Dr William B Atkinson, of Philadelphia

Assistant Secretary—Dr J Nevins Hyde, of Chicago, Ill

Treasurer—Dr R J Dunglison, of Philadelphia

Librarian—Dr C H A Kleinschmidt, of Washington, D C

Committee on Necrology—Dr J M Toner, of District of Columbia, Chairman, Ala, Jerome Cochran, Ark, C Watkins, Cal, Beverley Cole, Col, T H Hawkins, Conn, Frank H Whittemore, D Columbia, C H A Kleinschmidt, Del, Lewis P Bush, Fla, R B Burrows, Ga, R Battey, Ill, L H Montgomery, Ind, J F Hibberd, Iowa, J Williamson, Kan, C V Mottram, Ky, R M Farleigh, La, J W Duprè, Me, A J Fuller, Mass, M G Parker, Md, T B Evans, Mich, S S H French, Miss, B F Kittrell, Mo, L Bremer, Minn, W W Mayo, Neb, E M Whitten, N H, J J Berry, N J, I N Quimby, N Y, John Shrady, N C, Eugene Grissom, Ohio, J F Baldwin, Pa, D G Brinton, R I, C W Parsons, S C, R A Kinloch, Tenn, J Y Crawford, Tex, J W McLaughlin, Ver, E F Upham, Va, George B McCorkle, W Va, J H Pipes, Wis, S S Riddell, U S Navy, J C Speir, U S Army, M K Taylor, U S Mar Hosp Service, H S Austin, Dak Ter, J B Van Velsor, N M, G W Hansom

Committee on State Medicine—Ala, G A Kitchen, Ark, J A Dibrell, Jr, Cal, F H Terrill, Col, P R Thomas, Conn, Geo B Porter, D Columbia, J D Patterson, Fla, E T Sabal, Ga, J A McGaston, Ill, J H Hollister, Ind, J H Beasley, Iowa, P W Lewellyn, Kan, S Schenck, Ky, Wm Bailey, La, C W Day, Mass, M C Ledwood, Ira Russell, Md, John Morris, Mich, H B Baker, Miss, M S Grafft, Mo, J M Allen, Minn, W A Stenchfield, Neb, A R Mitchell, N H, G P Conn, N J, E I B Godfrey, N Y, E S F Arnold, N C, C J O Hagan, Ohio, H J Sharp, Pa, W Sniveley, R I, W T Parker, S C, C Kolbrock, Tenn, J B Nowling, Tex, C H Wilkinson, Ver, H D Holton, Va, J E Chancellor, W Va, S D Wilson, Wis, C Alexander, U S N, A L Gihon, U S A, E McClellan, U S M H Service, W H Long, Dak, J B Van Velsor, N M, W R Tipton

Members of Judicial Council—N S Davis, Ill, H Brown, Ky, William Brodie, Mich, D J Roberts, Tenn, R C Moore, Neb, T A Foster, Me, James A Gray, Ga

Trustees of THE JOURNAL—P O Hooper, Ark, A Garcelon, Me, L S McMurtry, Ky

Place of next meeting, Chicago, Ill, the first Tuesday in June, 1887, Chairman of the Committee of Arrangements, Charles Gilman Smith, M D, of Chicago, Ill

On motion the report was unanimously adopted

OFFICERS OF SECTIONS

Surgery and Anatomy—Chairman, H H Mudd, St Louis, Secretary, John B Roberts, Philadelphia

Practice of Medicine—Chairman, J S Lynch, Md, Secretary, J B Marvin, Ky

Obstetrics and Diseases of Women—Chairman, F M Johnson, Mo, Secretary, W W Jaggard, Ill

Ophthalmology, Otology, and Laryngology—Chairman, X C Scott, Ohio, Secretary, J H Thompson, Mo

Diseases of Children—Chairman, DeLaskie Miller, Ill, Secretary, W B Lawrence, Ark

Oral and Dental Surgery—Chairman, J S Marshall, Ill, Secretary, E S Talbot, Ill

State Medicine—Chairman, G H Rohé, Md, Secretary, Walter Wyman, U S M H S

Vice-President Logan took the Chair, and Dr A L Gihon read the following

REPORT ON THE PRESIDENT S ADDRESS

Your Committee to whom was referred those portions of the address of the President of the Association embodying suggestions of action on your part beg to report

1 That in their opinion it is proper and desirable that this Association shall without delay memorialize Congress in behalf of the pending resolution to appoint a scientific commission of three members of the profession of medicine to visit the habitats of yellow fever in Cuba, Mexico and Brazil, with a view to determine the validity of the claims of Drs Carmona and Freire to have discovered a means of preventing or modifying attacks of that disease

2 That your committee are not agreed among themselves as to the suggested recession from the recommendation of the use of the metric system in medicine

3 That they heartily approve of the suggestion of the President that the Association having created a Section on Medical Jurisprudence, shall further establish a Section on Dermatology and Syphilis

4 That they concur with the President as to the wisdom of the provision that the several Sections shall elect their own officers from among the men of recognized authority and experience in the special work of such Sections, and they are further of the opinion that the efficiency of these Sections will be enhanced by the continuance in office from year to year of the Secretaries of said Sections

5 That they endorse the views of the President respecting THE JOURNAL OF THE ASSOCIATION, and the exclusive proprietary interest of this Association in the papers and reports which are made part of its transactions

6 That the Association should emphatically denounce the endorsement by certificate, advertisement, testimonial or indirect approval in any form, of proprietary remedies and appliances, and should instruct the Judicial Council to take action in all such cases without formal presentation of charges, that, in the words of the President "The stigma of professional disgrace shall rest upon any regularly educated physician who allows his name to be advertised as the endorser of any patent, secret or proprietary medicine

7 That it is desirable that the Association shall appoint a Committee at this meeting to consider the advisability of amending the organic law of the Association by the establishment of Branches or in whatever other way may be deemed best, and to report thereon at the next annual meeting of the Association

8 That they earnestly re echo the wish of the President that the members of the profession will cordially cooperate in the effort to make the American session of the International Congress creditable to the country and attractive and instructive to the foreign visitors, sacrificing their personal and private piques and disappointments in generous emulation to contribute to that success, which had been unconditionally pledged in the invitation tendered the foreign members of the Congress to meet in the United States

All which is respectfully submitted

John H Murphy, Minnesota,
Albert L Gihon, U S Navy,
Alonzo Garcelon, Maine,
Committee

Dr Gihon moved its adoption

Dr J F Hibberd, Ind, objected to its adoption, and Dr J B Murdoch moved that it be read in sections

Dr W T Bishop, Penn, moved that it be postponed, and made the first special order under new business

After some further discussion Dr E Smith called the previous question, which was sustained The question, "Shall the main question now be put," was adopted by a large majority, and the vote being taken the report was adopted as a whole

The President then resumed the Chair

Dr Edward Jackson, of Philadelphia, called for the report of the Judicial Council on the Philadelphia County Medical Society The President announced that it was now in the hands of the Council

Dr N S Davis, Chairman, then read the Report of the Standing Committee on Meteorological Conditions and their Relations to the Prevalence of Diseases, also Concerning the Subject of Collective Investigation of Disease in Cooperation with the Committee of the British Medical Association

In behalf of the Standing Committee on Meteorological Conditions and their Relations to the Prevalence of Diseases, the undersigned would respectfully report progress The Signal Service of the General Government has kindly continued to furnish the reports from the several stations originally selected, and as far as practicable all the other elements of the investigation have been continued Sufficient materials have been accumulated for a valuable and interesting report, but on account of the apparent tendency of epidemic cholera to extend westward over Europe and perhaps reach this country, it has been thought desirable to continue the observations and records undertaken until the apparent cholera season has passed by A full report may be expected at the next annual meeting of the Association

In relation to Collective Investigations of Disease in connection with the Committee of the British Association, it is proper to state that your Committee acting in harmony with both the Committee of the British Association and the Committee of the Eighth International Medical Congress appointed at Copenhagen, have had a large number of convenient blanks with necessary instructions, asking for observations and records concerning the more important diseases, selected jointly by the Committee of the British Association and that of the International Congress, distributed to members of the profession in this country, asking them to fill the blanks as far as possible and return the same to the Chairman or Secretary of the Committee on or before January, 1887, for the purpose of enabling the Committee to tabulate and analyze the results for both the next meeting of this Association and for the Ninth International Congress at Washington, September, 1887 The foregoing statement of progress is respectfully submitted

By N S Davis,
Chairman of Committee

On motion the report was adopted

Dr James M Keller, of Arkansas, Chairman of the Committee, read the

REPORT ON CREMATION

It will be remembered, Mr President, that at the meeting held at St Paul four years ago, I first brought the subject of cremation before the Association in the shape of a resolution, asking its reference to the Committee on State Medicine Each year since it has been called up and purposely referred back without discussion, until at New Orleans it was referred to a special Committee to report to day, and your Committee respectfully submit this paper Since the subject was first mentioned it has become one upon which much thought and deliberation have been given, not only in this, but in other countries, and much has been written in advocacy of it, not only by the medical profession, but by people in all the walks of life Secular and religious journals, as well as medical, have all discussed it Indeed, so much has been written about it, and all in its favor, that your Committee deem it unnecessary to do more than offer one or two reasons why fire should be substituted for earth burial—why immediate and complete destruction of disease germs should supplant their dangerous planting and propagation We believe that the horrid practice of earth burial does more to propagate the germs of disease and death, and to spread desolation and pestilence over the human race, than does all man's ingenuity and ignorance in every other custom or habit

Not satisfied with doing all the evil we can in life, custom up to the present time makes us do a thousand fold more after death

From the moment the heart ceases to beat and vitality leaves the body of man or brute, decomposition, inexorable in its laws and hideous and horrible to contemplate, begins—in every phase of its decay, slow, repugnant and dangerous even to beasts of the field, and in no way does earth burial check or impede, but on the contrary, under certain atmospheric and climatic conditions rapidly aid and nourish the death dealing germ It only hides from sight the danger that sooner or later we take into our stomachs with each draught of spring or well water, or into our lungs with each inspiration Mr Darwin, in a paper written on the formation of mold, proved that in many places the whole superficial layer of earth has passed through the intestines of worms In some cases more than three inches of it had been deposited in fifteen years, and in another the depth in eighty years had reached thirteen inches

Strongly confirmatory of these conclusions are the investigations of Pasteur on the Etiology of Chorbon, in which he shows that this earth mold, brought up by worms over the graves of its dead, abounded with the same specific germ which propagated the disease, and these same organisms filled the intestines of the worms Who dares deny the assertion that the earth burial of any body, dead of a zymotic disease, is simply the planting of the seeds of such disease, sooner or later to grow and reproduce itself and other pestilential troubles among survivors? Dr Friere in his investigations of the cause of yellow fever in Rio de Janeiro found the soil of cemeteries in which its victims had been interred, absolutely filled with microbism organisms, identical with those found in the vomit and blood of his patients who had died with it Mother earth a foot below the surface, indeed from the surface to the body, swarmed with the characteristic germ Hence his justification in characterizing those cemeteries as the nurseries of the disease

The fatal delusion that the earth renders harmless and innocuous the corpse must be dispelled Incontrovertible proof of the fact that the vicinity of graveyards is unhealthy is superabundant That the dead do kill the living is equally true, and that cholera, yellow fever and the whole list of zymotic and infectious diseases are propagated by contaminating the earth and air and water supplies, is as true as that sewer gas or sewage water do propagate disease Point to a city if you can, whose growth has demanded the removal of the dead from its cemetery, that will not attest the truth of the rapid production of disease and death in all neighboring localities God's half-acre must become a thing of the past The graveyard must be adandoned The time has come for us to face squarely the problem, how to dispose of our dead with safety to the living And your Committee has an abiding faith that you will earnestly and at once say, that the "earth was made for the living, not for the dead," and that "pure air, pure water and pure soil" are absolutely necessary for perfect health Only skeptics deny that the dead do poison these three essentials of human life

Embalming and mummifying are equally as unsafe, and surely far more disgusting than earth burial, and equally as repulsive was the ancient German custom of "fire burial" Modern cremation alone is stripped of all objectionable features At an early day only a few minutes of time will be necessary to give back to loving survivors all that is worth preserving—a few pounds of harmless pure, clean, white ashes A process (the only safe one) the quickest, simplest and cheapest, leaving no vestige that is repugnant, offensive or injurious—strictly in conformity to nature's laws—accomplishing in a few moments what putrefaction after burial never does

In conclusion your Committee begs to amend the original resolution so that it may read

Resolved, That cremation or incineration of the dead has become a sanitary necessity in all populous cities, and that this Association advise its adoption as far as practicable

J M Keller,
S Logan

A motion having been made to adopt the report, Dr A Y P Garnett moved to lay it on the table, which was negatived

Dr I N Quimby called for the previous question, which was sustained, and having been agreed to the report was adopted by a majority of 159 to 106

Dr T A Reamy, of Ohio, moved a reconsideration in order that the report, which was in some sense objectionable, might be more fully discussed The motion for reconsideration was carried by 198 to 70

On motion of Dr John Morris, of Md, the report with its conclusions was referred to the Section on State Medicine

Dr J B Roberts, of Penn, offered a motion that the Permanent Secretary be instructed to give official information why the report of the Judicial Council was not given on Wednesday The motion was declared out of order

Dr Roberts then appealed from this decision, and the vote being taken the Chair was sustained by a vote of 191 to 25

Dr James T Whittaker, Chairman of the Section on Practical Medicine Materia Medica, and Physiology, then delivered the *Address in Medicine* (See Journal of May 15, p 533)

On motion of Dr J M Toner it was resolved that the Association be requested to return to the Judicial Council the report in the case of the Philadelphia County Medical Society, for the purpose of hearing additional testimony, and all interested were invited to appear before the Judicial Council then in session

Dr John H Rauch, of Illinois, Chairman of the Section, then delivered the *Address in State Medicine*, which was referred for publication

ENTERTAIMENT OF THE INTERNATIONAL CONGRESS IN 1887

On motion of Dr A Y P Garnett, seconded by Dr D W Yandell, it was

Resolved, That the delegates to this Association be requested upon their return to their homes to adopt such means as may to them seem best to call the attention of their respective delegates to the Congress of the United States to the desirability of making an appropriation to assist the medical profession of this country in properly receiving and entertaining the International Medical Congress in Washington in 1887 such cases without formal presentation of charges, that, in the words of the President "The stigma of professional disgrace shall rest upon any regularly educated physician who allows his name to be advertised as the endorser of any patent, secret or proprietary medicine

7 That it is desirable that the Association shall appoint a Committee at this meeting to consider the advisability of amending the organic law of the Association by the establishment of Branches or in whatever other way may be deemed best, and to report thereon at the next annual meeting of the Association

8 That they earnestly re echo the wish of the President that the members of the profession will cordially cooperate in the effort to make the American session of the International Congress creditable to the country and attractive and instructive to the foreign visitors, sacrificing their personal and private piques and disappointments in generous emulation to contribute to that success, which had been unconditionally pledged in the invitation tendered the foreign members of the Congress to meet in the United States

All which is respectfully submitted

John H Murphy, Minnesota
Albert L Gihon, U S Navy,
Alonzo Garcelon, Maine,
Committee

Dr Gihon moved its adoption

Dr J F Hibberd, Ind, objected to its adoption, and Dr J B Murdoch moved that it be read in sections

Dr W T Bishop, Penn, moved that it be postponed, and made the first special order under new business

After some further discussion Dr E Smith called the previous question, which was sustained The question, "Shall the main question now be put," was adopted by a large majority, and the vote being taken the report was adopted as a whole

The President then resumed the Chair

Dr Edward Jackson, of Philadelphia, called for the report of the Judicial Council on the Philadelphia County Medical Society The President announced that it was now in the hands of the Council

Dr N S Davis, Chairman, then read the Report of the Standing Committee on Meteorological Conditions and their Relations to the Prevalence of Diseases, also Concerning the Subject of Collective Investigation of Disease in Cooperation with the Committee of the British Medical Association

In behalf of the Standing Committee on Meteorological Conditions and their Relations to the Prevalence of Diseases, the undersigned would respectfully report progress The Signal Service of the General Government has kindly continued to furnish the reports from the several stations originally selected, and as far as practicable all the other elements of the investigation have been continued Sufficient materials have been accumulated for a valuable and interesting report, but on account of the apparent tendency of epidemic cholera to extend westward over Europe and perhaps reach this country, it has been thought desirable to continue the observations and records undertaken until the apparent cholera season has passed by A full report may be expected at the next annual meeting of the Association

In relation to Collective Investigations of Disease in connection with the Committee of the British Association, it is proper to state that your Committee acting in harmony with both the Committee of the British Association and the Committee of the Eighth International Medical Congress appointed at Copenhagen, have had a large number of convenient blanks with necessary instructions, asking for observations and records concerning the more important diseases, selected jointly by the Committee of the British Association and that of the International Congress, distributed to members of the profession in this country, asking them to fill the blanks as far as possible and return the same to the Chairman or Secretary of the Committee on or before January, 1887, for the purpose of enabling the Committee to tabulate and analyze the results for both the next meeting of this Association and for the Ninth International Congress at Washington, September, 1887 The foregoing statement of progress is respectfully submitted

By N S Davis,
Chairman of Committee

On motion the report was adopted

Dr James M Keller, of Arkansas, Chairman of the Committee, read the

REPORT ON CREMATION

It will be remembered, Mr President, that at the meeting held at St Paul four years ago, I first brought the subject of cremation before the Association in the shape of a resolution, asking its reference to the Committee on State Medicine Each year since it has been called up and purposely referred back without discussion, until at New Orleans it was referred to a special Committee to report to day, and your Committee respectfully submit this paper Since the subject was first mentioned it has become one upon which much thought and deliberation have been given, not only in this, but in other countries, and much has been written in advocacy of it, not only by the medical profession, but by people in all the walks of life Secular and religious journals, as well as medical, have all discussed it Indeed, so much has been written about it, and all in its favor, that your Committee deem it unnecessary to do more than offer one or two reasons why fire should be substituted for earth burial—why immediate and complete destruction of disease germs should supplant their dangerous planting and propagation We believe that the horrid practice of earth burial does more to propagate the germs of disease and death, and to spread desolation and pestilence over the human race, than does all man's ingenuity and ignorance in every other custom or habit

Not satisfied with doing all the evil we can in life, custom up to the present time makes us do a thousand fold more after death

From the moment the heart ceases to beat and vitality leaves the body of man or brute, decomposition, inexorable in its laws and hideous and horrible to contemplate, begins—in every phase of its decay, slow, repugnant and dangerous even to beasts of the field, and in no way does earth burial check or impede, but on the contrary, under certain atmospheric and climatic conditions rapidly aid and nourish the death dealing germ It only hides from sight the danger that sooner or later we take into our stomachs with each draught of spring or well water, or into our lungs with each inspiration Mr Darwin, in a paper written on the formation of mold, proved that in many places the whole superficial layer of earth has passed through the intestines of worms In some cases more than three inches of it had been deposited in fifteen years, and in another the depth in eighty years had reached thirteen inches

Strongly confirmatory of these conclusions are the investigations of Pasteur on the Etiology of Chorbon, in which he shows that this earth mold, brought up by worms over the graves of its dead, abounded with the same specific germ which propagated the disease, and these same organisms filled the intestines of the worms Who dares deny the assertion that the earth burial of any body, dead of a zymotic disease, is simply the planting of the seeds of such disease, sooner or later to grow and reproduce itself and other pestilential troubles among survivors? Dr Friere in his investigations of the cause of yellow fever in Rio de Janeiro found the soil of cemeteries in which its victims had been interred, absolutely filled with microbism organisms, identical with those found in the vomit and blood of his patients who had died with it Mother earth a foot below the surface, indeed from the surface to the body, swarmed with the characteristic germ Hence his justification in characterizing those cemeteries as the nurseries of the disease

The fatal delusion that the earth renders harmless and innocuous the corpse must be dispelled Incontrovertible proof of the fact that the vicinity of graveyards is unhealthy is superabundant That the dead do kill the living is equally true, and that cholera, yellow fever and the whole list of zymotic and infectious diseases are propagated by contaminating the earth and air and water supplies, is as true as that sewer gas or sewage water do propagate disease Point to a city if you can, whose growth has demanded the removal of the dead from its cemetery, that will not attest the truth of the rapid production of disease and death in all neighboring localities God's half-acre must become a thing of the past The graveyard must be adandoned The time has come for us to face squarely the problem, how to dispose of our dead with safety to the living And your Committee has an abiding faith that you will earnestly and at once say, that the "earth was made for the living, not for the dead," and that "pure air, pure water and pure soil" are absolutely necessary for perfect health Only skeptics deny that the dead do poison these three essentials of human life

Embalming and mummifying are equally as unsafe, and surely far more disgusting than earth burial, and equally as repulsive was the ancient German custom of "fire burial" Modern cremation alone is stripped of all objectionable features At an early day only a few minutes of time will be necessary to give back to loving survivors all that is worth preserving—a few pounds of harmless pure, clean, white ashes A process (the only safe one) the quickest, simplest and cheapest, leaving no vestige that is repugnant, offensive or injurious—strictly in conformity to nature's laws—accomplishing in a few moments what putrefaction after burial never does

In conclusion your Committee begs to amend the original resolution so that it may read

Resolved, That cremation or incineration of the dead has become a sanitary necessity in all populous cities, and that this Association advise its adoption as far as practicable

J M KELLER,
S LOGAN

A motion having been made to adopt the report, Dr A Y P Garnett moved to lay it on the table, which was negatived

Dr I N Quimby called for the previous question, which was sustained, and having been agreed to the report was adopted by a majority of 159 to 106

Dr T A Reamy, of Ohio, moved a reconsideration in order that the report, which was in some sense objectionable, might be more fully discussed The motion for reconsideration was carried by 198 to 70

On motion of Dr John Morris, of Md , the report with its conclusions was referred to the Section on State Medicine

Dr J B Roberts, of Penn , offered a motion that the Permanent Secretary be instructed to give official information why the report of the Judicial Council was not given on Wednesday The motion was declared out of order

Dr Roberts then appealed from this decision, and the vote being taken the Chair was sustained by a vote of 191 to 25

Dr James T Whittaker, Chairman of the Section on Practical Medicine, Materia Medica, and Physiology, then delivered the *Address in Medicine* (See JOURNAL of May 15, p 533)

On motion of Dr J M Toner it was resolved that the Association be requested to return to the Judicial Council the report in the case of the Philadelphia County Medical Society, for the purpose of hearing additional testimony, and all interested were invited to appear before the Judicial Council then in session

Dr John H Rauch, of Illinois, Chairman of the Section, then delivered the *Address in State Medicine*, which was referred for publication

ENTERTAIMENT OF THE INTERNATIONAL CONGRESS IN 1887

On motion of Dr A Y P Garnett, seconded by Dr D W Yandell, it was

Resolved, That the delegates to this Association be requested upon their return to their homes to adopt such means as may to them seem best to call the attention of their respective delegates to the Congress of the United States to the desirability of making an appropriation to assist the medical profession of this country in properly receiving and entertaining the International Medical Congress in Washington in 1887

Dr R J Dunglison then read the

TREASURER'S REPORT

Dr Richard J Dunglison Treasurer, in Account with the American Medical Association

1885			Dr
May 5,	To cash balance as per report at New Orleans meeting	$932 11	
'	to cash received at New Orleans meeting from delegates and permanent members, less exchange	2 872 25	
1886			
April 30	to cash from annual dues and subscriptions paid Treasurer to date	8,305 00	
	to cash from subscriptions advertisements, &c , paid at office of publication	6 358 34	
'	to cash from sales of Volumes of Transactions etc	99 69	$18,567 39
Cr 1885			
May 16,	By cash paid Dr Samuel Logan Chairman Committee of Arrangements New Orleans meeting expenses for rental printing etc	$461 25	
May 22	by cash paid Dr W B Atkinson Permanent Secretary expenses of travel, postage expressage as per order of the Assoc n	127 00	
"	by cash paid Dr R J Dunglison Treasurer expenses of travel, postage, etc , as per order of the Association	123 57	
June 13	by cash paid Wm F Fell & Co printing, postals etc	22 75	
July 10	by cash paid Wm F Fell & Co printing slips postage etc	10 75	
July 29,	by cash paid postage stationery printing addressing circulars	82 75	
'	by cash paid Attemus & Co, printing etc	4 70	
"	by cash paid Dunlap & Clarke printing	2 50	
	by cash paid J S Brownus packing and expressing Vols of Transactions from New York	2 59	
Aug 17,	by cash paid Dunlap & Clarke printing circulars and stamped envelopes	45 05	
Oct 3,	by cash paid envelopes postage addressing circulars etc	45 47	
"	by cash paid N T Barnes cash advanced for freight and postage on Volumes of Transactions	4 74	
Nov 13	by cash paid Wm F Fell & Co , printing	12 50	
	by cash paid stamped envelopes and postage	22 70	
1886			
Mar 9,	by cash paid postage stationery, etc to date	39 84	
Mar 21,	by cash paid Wm F Fell & Co printing circulars postals etc	9 00	
April 30	by cash paid postage expressage envelopes etc , to date	25 70	
'	by cash paid Dr N S Davis publication expenses to date	12,535 65	
	by cash paid Dr N S Davis editorial work to date	4 561 30	
'	by cash paid exchange and commissions to collectors	49 28	
	balance	378 39	$18 567 39

(Copy) May 7, 1886

This certifies that we have examined the accounts of receipts and expenditures of R J Dunglison, Treasurer of the Association and find the same correct.

Alonzo Garcelon } Auditing
L S McMurtry } Committee

Dr C H A Kleinschmidt read the

LIBRARIAN'S REPORT,

which was adopted, including its recommendation of an appropriation of $10 for the *Index Medicus*

By request the report of the Committee on Publication was made the first special order of business for Friday

Dr A L Gihon offered an amendment to the By-laws to create a Section on Dermatology and Venereal Diseases This must lay over until 1887

On motion of Dr Gihon it was

Resolved, That a committee of nine members, including the President elect and the four Vice-Presidents elect, shall be appointed by the Chair to consider the various propositions looking to the amendment of the organic law of the Association by the establishment of Branches, or in any other way, said Committee to report at the next annual meeting what measures of reorganization, if any, may be desirable

On motion the Association adjourned until Friday at 10 A M

Friday, May 7—Fourth Day

The President called the Association to order at 10 A M , and prayer was offered by Rev W V Tudor, D D

General W T Sherman having entered the room was invited to a seat on the platform, in accepting which he made a few appropriate remarks

The President announced the following as the

COMMITTEE ON BRANCHES

The President-elect, the four Vice-Presidents elect, Drs N S Davis, J M Toner, and A L Gihon

The Permanent Secretary read the following on behalf of J McF Gaston, of Atlanta, Georgia

Whereas, Authentic reports have been published, indicating that inoculation with the attenuated virus of yellow fever has afforded protection from this disease in more than 6,000 persons, residing in the same localities with others not inoculated who died during an epidemic of yellow fever in Rio de Janeiro, Brazil, and

Whereas, Other evidence of the efficacy of yellow fever inoculation is corroborated by the statements of Dr Horace M Lane, a member of this Association now present, to the effect that he was inoculated by Dr Domingos Freire in Rio de Janeiro and remained in that city without contracting the disease, while many others who were not thus inoculated were attacked and died , and further, that he had the opportunity of verifying the protective influence of inoculation against yellow fever in numerous other cases under his observation, and

Whereas, The facts in regard to the results of this prophylactic against yellow fever warrant the conviction that it is trustworthy and safe in practice, therefore

Resolved, That the American Medical Association recommends prompt action by the United States Government for the investigation of the claims of inoculation against yellow fever, and the appropriation of the means requisite for the expenses of the same, with the appointment of a medical and scientific commission to undertake this inquiry

Resolved, That a committee of three be appointed by the President to memorialize Congress in accordance with this recommendation at the earliest day practicable

The President announced the following as the Committee Drs J McF Gaston, of Atlanta, Ga , P O Hooper, of Little Rock, Ark , and T G Richardson, of New Orleans, La

THE SECTION ON MEDICAL JURISPRUDENCE,

as organized under the amendment adopted at this session, announced that they had chosen the following officers President, I N Quimby, of New Jersey, Secretary, H H Kimball, of Minnesota

Dr Chas K Mills, of Philadelphia, moved that the order of business be suspended to allow the Judicial Council to report, and for other business On motion of Dr J B Hamilton this was laid on the table

Dr J M Toner, Chairman, then read the

REPORT OF THE TRUSTEES OF THE JOURNAL

The Board of Trustees for the publication of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION respectfully submit the following as their Annual Report for the year ending March 31, 1886

For reasons fully stated in the last report the financial year is made to include the receipts and expenditures of THE JOURNAL for the fourth quarter of the second year and the first three quarters of the *third* year of its publication

At the earnest solicitation of the Trustees, Prof Davis consented to continue his labors as editor in-chief during the last year, and under his general supervision THE JOURNAL has been issued regularly and without a single exception either at or before the date of its publication has been mailed to members At the last annual meeting the Trustees instructed the Business Committee to commence the publication of THE JOURNAL upon the account of the Association when the then existing contracts should expire Accordingly for the last nine months THE JOURNAL has been so published The details of this work were committed to the editor, and are so fully set forth in his annual report to the Trustees that we desire to incorporate it in our report to the Association It is as follows

The undersigned respectfully submits the following statements in regard to the progress of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION and its present status, financially and otherwise

Weekly Circulation —At the date of my last annual report, March 31st, 1885, the total regular weekly circulation of THE JOURNAL was 4,020, of which 3,050 were members of the Association as reported to this office by the Treasurer, 850 were subscribers, and 120 to exchanges and advertisers

At this date, March 31st, 1886, the total weekly circulation is 4,271, of which 3,374 are members of the Association as returned by the Treasurer, 645 subscribers, and 252 to foreign and domestic exchanges and advertisers The net increase in the membership during the year has been 324, the net decrease in subscribers 205, and the increase of exchanges, chiefly foreign, and foreign correspondents, 132, thereby giving a net increase in the regular weekly mail list of 251 during the year The number of JOURNALS printed each week during the year has been 4500, being 300 in excess of the previous year, and 229 in excess of the regular mail list Part of these have been required for use as sample copies and extras to contributors, leaving on hand about 75 copies of complete files The decrease in the number of subscribers is occasioned almost entirely by deaths and the change to members by application Regarding it preferable to increase the permanent membership rather than the list of simple subscribers, we have uniformly encouraged the change

Receipts —The receipts at the office of publication relate only to receipts from subscriptions, advertisements, reprints, and extra JOURNALS, all membership dues being sent directly to the Treasurer, and will be accounted for in his annual report From the sources indicated there has been received at this office during the year ending March 31st, 1886, the sum of $5,330 46, of which $2,738 29 were from subscribers, $2,165 07 from advertisers, and $427 10 from those ordering reprints and extras, all of which has been paid to the Treasurer

Assets —During the three past years there has accumulated unpaid subscriptions amounting, at the date of this report, to the sum of $5,435 00 One-half of this will be paid with reasonable certainty by the end of the present JOURNAL year The remaining half, however, is due from parties who became subscribers by signing and returning the original pledges that were sent out before the commencement of the publication, and who, in answer to the many bills sent, have made many fair promises and yet paid nothing thus far I had intended to erase all the names of those who had paid nothing at the commencement of this year But during the last quarter a number have remitted $15 for the whole three years, and it encouraged me to let the list remain to the end of the present volume, in hopes that many more of them might succeed in fulfilling their promises in the same manner None of the receipts for advertisements during the third quarter of the present JOURNAL year, ending March 31st amounting to about $700, is included in this report, for though all good, it is not all paid until after the close of the quarter

Expenses —The total cost of publishing THE JOURNAL, 4,500 copies weekly, during the year ending March 31st, 1886, not including editorial salary and expenses, is $11,410 77, of which $2,906 76 was for the fourth quarter of the second year of publication, leaving $8,504 01 for the first three quarters of the third year of publication But it should be stated that in this amount, for the three quarters of the current year, is included the paper and press-work of reprints, amounting to $427 10, which was returned to the treasury in full by those for whom the reprints were made Deducting the sum received for the reprints, it makes the cost of publication of THE JOURNAL for the first three quarters of the current year, $8,076 91, and a total for the year ending March 31st, 1886, $10,983 67, which is $1,136 51 less than the cost of publication the preceding year, and yet the weekly issue this year is 300 more than last year The saving, however, belongs entirely to the last three quarters of the year, and is owing to two causes First, the reduction of postage on second class mail matter has reduced the aggregate of postage during the last nine months about $300, or at the rate of $400 per annum Second, the change from the publication by contract, to the publication in our own printing office, which was commenced last June, effected a saving of $836 51 since the first of July, 1885, or at the rate of $1,115 34 for the year ending June 30th, 1886 If we make the proper allowance for the 300 additional copies weekly printed this year, it increases the amount of actual saving for the year to $1,500

The total amount drawn from the treasury for the payment of editorial work, which includes foreign and domestic correspondence, reports of medical society proceedings, clinical lectures, etc , and for assistant editorial work proper, during the year ending March 31st, 1886, is $3,115 10, making the total expenses for The Journal for the year ending March 31st, 1886, $14,098 77, and the total receipts, as shown by the report of the Treasurer, $18,567 39

At the last annual meeting of the Board of Trustess I was authorized, on the expiration of the then existing contracts for printing The Journal, to purchase the necessary amount of type and fixtures and establish a printing office owned and conducted exclusively in the interest of The Journal, and superintended by a competent foreman Accordingly, in June, 1885, I purchased of the Illinois Type Foundry Co type and fixtures for direct use in printing The Journal to the amount of $668 87, and paid for carpenter work and labor in fitting up the office and placing the printing material in position, $101 15 In August it became necessary to reprint the whole mail list for directing wrappers, and I purchased of Marder, Luse & Co , Chicago, plain, cheap type, so that the whole mail list, when set up, could be kept permanently on the galleys and permit all changes and additions to be made with the same facility as in correcting proof This cost $274 86, and will serve the purpose for several years at little cost The aggregate amount thus expended to fully equip the printing office for good work was $1,044 88, which is not included in the foregoing figures in regard to the cost of publication of The Journal during the past year, because these materials constitute permanent property, and with trifling additions from time to time will serve their purpose for several years

An accurate inventory of the value of the property now on hand in good order is as follows

Printing material in use for The Journal	$722 42
Printing material in use for the mail list	253 52
Office fixtures and gas fitting	108 00
Total	$1,083 94

I hold an insurance policy on this property for $800 00

In an earlier part of this report it has been shown that by the establishment of The Journal's own printing office, the publication expenses of The Journal during the year ending March 3 st, 1886, have been $1,136 51 less than under the contract system of the previous year, being a saving of $52 57 more than the entire cost of the printing materials now on hand and in good order for future use

During the last nine months that The Journal office has been in operation and under the care of Mr J Harrison White, our foreman, every number issued has been committed to the United States mail on or before the date of its publication, and in much better order than formerly

About $350 more has been expended for editorial labor the year just closed than during the preceding, owing to the employment of more writers, both in the office and in more regular and extensive foreign and domestic correspondence

The only department of The Journal work which has disappointed us during the past year has been in the receipts from advertising We committed this department to the management of a general agent who was familiar with medical advertising, and who agreed to pay The Journal a uniform price for each page that he could fill, and make all his own collections He was confident that he could much increase our revenue from that source But such has not been the result, and a better arrangement must be effected for the future

Some may be disappointed at the moderate increase in the aggregate of members and subscribers receiving The Journal the past year But if it is remembered that since The Journal was established less than three years since, The Journal and the Association have encountered first the defection of the New York New Code party, followed during the last year by the extensive opposition on account of the controversy about the International Medical Congress, it will rather be a matter of surprise that we have had any increase whatever But the figures show that the aggregate increase of members and subscribers has considerably exceeded the discontinuances, and with the disappearance of these temporary subjects of controversy the increase will be much greater annually

Respectfully submitted N S Davis,
Editor of Journal of American Medical Association

In reviewing this report and the enterprise it is of interest to note that contrary to what might have been expected, owing to differences among our professional brethren, the circulation of The Journal has not fallen off, but has increased so that the list has increased 251 The weekly issue of The Journal during last year was 4,200 During the present year it is 4,500 The cost of publication, not including Editor's salary, for the former year was $ 2,120 18, for the present year it is $11,410 77, showing a net decrease of expenses of $709 41 To this should be added amounts received during the present year from the sale of reprints, etc , which give a *net* saving to the Association, by its publication of The Journal of $1136 51, although 300 more copies were published The entire cost of the *plant* for publishing The Journal and all expenses on its account to this date have been $1,044 88, so that in the savings of the last nine months, the entire outlay has been paid, leaving a balance of $91 63 as compared with last year With regard to editoral salary, your Trustees are authorized to expend a sum annually not exceeding $6,000 But they have been unanimous in the opinion that no debts should be incurred on account of the publication of The Journal, which its receipts would not warrant Much to their regret, they have been compelled to limit the amount paid for all editorial work, including foreign and domestic correspondence to the sum of $3,115 10 for the past year

We are not unmindful of what The Journal *should be*, or of what it *will be*, whenever its receipts will warrant such outlay as is made in the development of medical journals published in the interest of private parties The Trustees are confident that the success of the experiment of publishing THE JOURNAL on the account of the Association fully warrants the continuance of the same general policy, and while they will summon to his *aid* all the editoral help which the finances of the Association will warrant, they have solicited Dr Davis to continue his present relations with THE JOURNAL, and we are happy to state that he has consented to remain its Editor

Dr A Garcelon announced that the accounts had been audited and found correct

DR J M Toner then read the

REPORT OF THE JUDICIAL COUNCIL

ST LOUIS, MAY 6, 1886

In the case of Protest against the admission of delegates from Tri State Medical Societies, the Council would state that our constitution recognizes only State Societies, and County, District and local Societies which are affiliated with the State Society Delegates from Tri State Societies are therefore not entitled to admission

In the case of Protest against the registration of delegates from the Davidson County Medical Society, of Tennessee, after careful examination of printed, written and oral testimony and thorough consideration of the same, the Council decide that sufficient evidence has not been presented to warrant denying registration to said delegates, but it also hereby admonishes the Davidson County Medical Society, as soon as practicable, to place itself in more explicit affiliation with the Tennessee State Medical Society

The Protest against the registration of delegates from the Mississippi Valley Medical Association is accompanied by no charges or specifications, and therefore the Council, in accordance with its rules, can take no action upon it

A protest against admission to membership of Dr W Dixon, of Henderson, Ky , is also presented without any evidence accompanying it, and its treatment must be the same

In the case of Protest against the registration of delegates from the Philadelphia County Medical Society, which upon petition was reopened to admit new testimony, after a long and careful re examination, including evidence not before presented, the Judicial Council decide that, notwithstanding the fact that said delegates hold documents usually entitling to registration, it also appears, in evidence, that the methods employed at their election were of such an irregular character as to compel their rejection as delegates by the Council

The Council would also suggest the return of any dues which may have been paid to the Treasurer by said delegates

The Council also refers the Protest and all the papers accompanying it to the Philadelphia County Medical Society for adjudication

J K BARTLETT,
Secretary of Judicial Council

Dr Edward Jackson, of Philadelphia, as a question of privilege, asked the President to rule as to the present status of the Philadelphia County Medical Society The President decided this to be out of order

A communication from the California State Medical Society was received and ordered on file

Dr Eugene Smith, of Michigan, Chairman of the Section, then delivered the *Address on Ophthalmology, Otology and Laryngology* Referred

Dr W D Haggard, of Tenn , Chairman, delivered in brief the *Address on Diseases of Children* Referred

Dr John S Marshall, of Chicago, Chairman, read by title the *Address on Oral and Dental Surgery* Referred

The Committee on Necrology reported that as usual most of the necrological notices had been published in THE JOURNAL, as others would be

The Section on State Medicine sent in the following resolutions

The memorial of the West End Woman's National Christian Temperance Union having been referred to the Section for consideration, the following resolution offered by Dr John Morris, of Baltimore, Md , was adopted and directed to be reported to the Association

Resolved, That we reaffirm the utterances of the American Medical Association concerning the use and abuse of alcohol and its effects upon the body, and recommend the study of hygiene in all our public schools To facilitate this study we urge the speedy passage by the House of Representatives of the Senate Bill now before it, requiring instruction in the effects of stimulants and narcotics in schools under Federal control

The report of the Chairman of the Committee on Cremation, Dr James M Keller, of Arkansas, having been referred by the Association to the Section for consideration, the following resolution offered by Dr G S Franklin, of Ohio, was adopted and directed to be reported to the Association

Resolved, That a committee of this Section be appointed to further consider the subject of cremation, with instructions to report their conclusions to the Section at the next annual meeting of the Association

The address of Dr John H Rauch, of Illinois, Chairman of the Section, before the Association in general session Thursday, May 6, having been referred to the Section for consideration, the following resolution offered by Dr Albert L Gihon, U S Navy, was adopted and directed to be reported to the Association

Resolved, That in accordance with the suggestions of the Chairman in his address before the Association, the American Medical Association direct the Section on State Medicine to prepare and report at the next annual meeting, a form of law regulating the conditions requisite as preliminary to the study of Medicine, the requirements for graduation, and for the license to practice medicine, to be urged upon the several States in order to secure uniformity in methods and results throughout the United States

These resolutions were adopted

The President announced as the

SPECIAL COMMITTEE ON CREMATION

Drs J M Keller, Ark , John Morris, Md , F Formento, La , Samuel Logan, La , and G S Franklin

On motion it was

Resolved, That hereafter the Committee of Arrangements be requested to place the report of the Publication Committee in the order of the first day's proceedings

Dr John B Roberts having offered a series of questions, on motion of Dr A Octerlony, of Ky , they were laid upon the table with but one dissenting voice A motion by Dr J B Hamilton to reconsider was also voted down

The Permanent Secretary read the following list of

DELEGATES TO FOREIGN SOCIETIES

To medical organizations of Europe, Drs N S Davis, Ill , W W Dawson, Ohio, Donald McLean, Eugene Smith, and Wm Brodie, of Mich , B A Watson, of N J , W T Briggs, Tenn , W H Pancoast, James C Wilson and John V Shoemaker, of Penn , L H Montgomery and J L Gray, Ill , E H M Sell and E Cutter, N Y , S C Gordon, Me , and G C Catlett, Mo

Ontario Medical Association, H O Walker, Mich

Canadian Medical Association, Wm Brodie, Mich

Dr John B Roberts then offered his resignation as Secretary of the Section on Surgery, accepted

On motion of Dr W B Atkinson the Chairman of the Section was authorized to fill the vacancy

On motion of Dr A E Baldwin, Ill , that as the resolution introduced by Dr Roberts are a reflection upon our excellent President and Secretary all reference to them be expunged from the minutes

Dr Edward Jackson, Penn , having offered a protest, it was objected by Dr Brinton, Penn , that he was not a regularly accredited delegate, and the protest was unanimously laid upon the table

Dr N S Davis offered a resolution of cordial thanks to the Chairman of the Committee of Arangements, the local officers, and the people of St Louis from whom the Association had received such kind treatment By the suggestion of Dr Octerlony the vote was taken standing, and was unanimous

On motion of Dr A Garcelon seconded by Dr I B Todd, Ky , it was

Resolved, That the thanks of the Association is hereby tendered the medical profession and citizens of St Louis for the cordial and generous reception we, as members, have received at their hands, and we take this occasion to assure them that we take our departure with regret, bearing with us the highest estimation of the generosity and liberality of its citizens, the beauty and healthfulness of its location, at the junction of the two longest and largest navigable rivers of our continent, in the centre of one of the most extensive and fertile agricultural regions of the world, rendering it one of the great commercial and manufacturing centres of the nation, as well as a seat of education, refinement, and the fine arts

Resolved, That our especial thanks are extended to the ladies of St Louis for the elegant social entertainments we have enjoyed at their hands, and as *an acknowledgement we can only say*, God bless the ladies of St Louis

Dr J M Keller offered an

AMENDMENT TO THE BY-LAWS,

making the officers of the Sections again nominative by the Committee on Nominations To lay over until 1887

Drs N S Davis, Ill , and J B Johnson, Mo , having been appointed for the purpose, conducted the President elect, Dr E S Gregory, of St Louis, to the Chair He was introduced by the President, and in taking his place returned thanks to the Association for the honor conferred upon him

The President then bade the members farewell in a felicitous manner, and declared the Association adjourned W B Atkinson, M D ,

Permanent Secretary

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Bad Effects of Cocaine in Glaucoma—Societe Française d'Ophthalmologie—Henri Legrand du Saulle

Like most good things in this world, cocaine, which has been so enthusiastically adopted in ocular therapeutics, has proved to have had its reverses, as pointed out by Dr Javal, at a recent meeting of the Academy of Medicine It is known in ophthalmic practice that the instillation of atropine into an eye affected with glaucoma, or even predisposed to that affection, produces a most disastrous effect, and often brings on paroxysms of violent pain in the eye Although this fact is known, yet atropine continues to be applied in glaucomatous affections, but it is presumed only in cases where there has been an error in diagnosis According to Dr Javal, cocaine produces the same deplorable results, for in many cases that came under his own observation the condition of glaucomatous eyes had become aggravated by the use of this agent, and that in certain cases in which the symptoms of glaucoma were scarcely perceptible, cocaine rendered them more marked These symptoms, however, may be successfully combated by the employment of eserine Dr Javal prefers the latter in the form of gelatine discs to that of solution, as being more convenient These remarks offer a very great interest in ophthalmic practice, and also as regards the pathogenesis of a malady concerning the nature of which there is still such a diversity of opinions Divers theories have been proposed to explain the action of cocaine, and while certain authors, as Pfluger, attribute the anæsthetic effect to direct action of the drug on the terminal fibres of the fifth pair of nerves, others, like Eversbusch, think that the contraction of the smaller arteries and the capillary anemia which results are probably the essential cause of the loss of sensibility

The practical fact on which attention should be directed, is that the nutritive activity of the parts af fected is for some time diminished, and that when this nutrition is already weakened, as in persons old and debilitated, the free use of cocaine exposes the patient to certain risks as regards the vitality of his tissues. Hence, it would be imprudent to permit old and enfeebled persons to employ solutions of cocaine except under the direct control of a medical man.

I have taken these remarks from *La France Medicale*, which were published in that journal by Dr. Chevallereau, a rising ophthalmologist, who also gave one or two examples that came under his own observation, of the danger attending the indiscriminate use of cocaine. Among others I may cite the case of a young man aged 20 years, who had been treated for syphilis contracted at Senegal. The patient had a very severe attack of exudative iritis accompanied with increased intra ocular tension, and the most intense pain, which induced the doctor to practise paracentesis of the cornea. A two per cent solution of cocaine had been instilled into the eye four times at intervals of five minutes before the operation. After the paracentesis, a compressive bandage was applied which was removed only the next morning. The patient went on well, he passed a good night, but during the last fortnight the pains were so intense that they prevented sleep. The wound in the cornea healed, but there was in its immediate vicinity a slight cloudy infiltration of the cornea. The doctor prescribed the renewal of the instillations of atropine, but the nurse who was attending the patient dropped into the eye by mistake a solution of cocaine, which she repeated five times during the day. The next morning the cornea became opalescent for about two thirds of its extent. Fortunately the error was discovered in time, when the atropine was resorted to, and in two days after all was right again.

The "Société Francaise d' Ophthalmologie" held its annual meeting at Paris from the 27th to the 29th of April, under the Presidency of Professor Gunning, of Amsterdam, when many interesting papers were read before the Congress. The first subject brought to notice was that of Dr. Dianoux, of Nantes, on "The Treatment of Sympathetic Ophthalmia," and submitted for consideration three methods of treatment in a surgical point of view, viz. Exenteration, enucleation, enervation. Of the three methods Dr. Dianoux gives the preference to enervation, on the following grounds. In the first place, it is less dangerous than the other two operations. In an esthetic point of view, it is interesting to know that after enervation the eye does not become atrophied, and that in consequence it preserves the satisfactory appearance of a normal organ. Moreover, it should not be forgotten that enucleation is often rejected by patients with horror, who on the contrary readily accept an operation like enervation. This operation consists in dividing all the nerves which go to the globe of the eye, the optic nerve being included.

Enucleation, Dr. Dianoux states, does not act in any other way than as a preservative against sympathetic ophthalmia, and it is by the division of all the nerves of the eye that this operation is efficacious. If, then, the effect of the two operations is identical, enervation should certainly be preferred, because in producing the same effect the organ of vision is preserved in its place, which is of course of inestimable value, even though the function be destroyed. As for exenteration, he rejects it in toto on the grounds that the ciliary nerves might become painful and serve as conductors to sympathetic phenomena, and the lymphatic sheaths would remain open to all sorts of infection. From the debate that followed some prefer enucleation (Abadie and Galezowski), others exenteration (de Wecker). Galezowski stated that of 600 enucleations, he had only two cases which proved fatal, one of which was caused by hæmorrhage, which it was impossible to stop.

I have just received a notice to attend the funeral of Dr. Henri LeGrand du Saulle, who died on the 5th inst. at the early age of 56 years, from cerebral congestion. He was a very distinguished member of the profession, and besides being physician to the Salpetriére Asylum, he held many official appointments appertaining to his specialty as an alienist, in which capacity he was one of the leaders. A. B.

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Extra uterine Fœtation — The Etiology of Potts' Disease—Foreign Bodies in the Œsophagus—Alumni Association of the Woman's Hospital—New York Academy of Medicine.

At the last meeting of the New York County Medical Association, held May 17, Professor Wm. T. Lusk made a very impressive address on the subject of *Extra uterine Fœtation*, his remarks being based on a case which presented many points of unusual interest. The patient was a lady of Wisconsin who ceased to menstruate in September, 1883, and about a month afterward had several attacks of acute paroxysmal pain, one of which was of intense severity. After that pregnancy apparently progressed in a perfectly normal manner until the middle of June, when the fœtal movements stopped. A month later, believing herself to be in labor, she sent for her physician, who found that the uterus was empty, and that a tumor had developed outside of it.

Although the possibility of the existence of abdominal pregnancy was discussed, the diagnosis of this condition was not made by any of a number of physicians who saw her until she came to this city in February, 1885, and consulted Dr. Fordyce Barker. Drs. Thomas and Lusk also saw the case in consultation, and they concurring in the opinion of Dr. Barker, the patient was advised to return to New York in the following June or September, for the purpose of having laparotomy performed. This advice was not followed, however, and after her return she suffered from what was supposed to be remittent fever, but which Dr. Lusk had no doubt, from the conditions found at the autopsy, was in reality septicæmia from putrid absorption.

In the following autumn her health appreciably

The President announced as the

SPECIAL COMMITTEE ON CREMATION

Drs J M Keller, Ark , John Morris, Md , F Formento, La , Samuel Logan, La , and G S Franklin

On motion it was

Resolved, That hereafter the Committee of Arrangements be requested to place the report of the Publication Committee in the order of the first day's proceedings

Dr John B Roberts having offered a series of questions, on motion of Dr A Octerlony, of Ky , they were laid upon the table with but one dissenting voice A motion by Dr J B Hamilton to reconsider was also voted down

The Permanent Secretary read the following list of

DELEGATES TO FOREIGN SOCIETIES

To medical organizations of Europe, Drs N S Davis, Ill , W W Dawson, Ohio, Donald McLean, Eugene Smith, and Wm Brodie, of Mich , B A Watson, of N J , W T Briggs, Tenn , W H Pancoast, James C Wilson and John V Shoemaker, of Penn , L H Montgomery and J L Gray, Ill , E H M Sell and E Cutter, N Y , S C Gordon, Me , and G C Catlett, Mo

Ontario Medical Association, H O Walker, Mich

Canadian Medical Association, Wm Brodie, Mich

Dr John B Roberts then offered his resignation as Secretary of the Section on Surgery, accepted

On motion of Dr W B Atkinson the Chairman of the Section was authorized to fill the vacancy

On motion of Dr A E Baldwin, Ill , that as the resolution introduced by Dr Roberts are a reflection upon our excellent President and Secretary all reference to them be expunged from the minutes

Dr Edward Jackson, Penn , having offered a protest, it was objected by Dr Brinton, Penn , that he was not a regularly accredited delegate, and the protest was unanimously laid upon the table

Dr N S Davis offered a resolution of cordial thanks to the Chairman of the Committee of Arangements, the local officers, and the people of St Louis from whom the Association had received such kind treatment By the suggestion of Dr Octerlony the vote was taken standing, and was unanimous

On motion of Dr A Garcelon seconded by Dr I B Todd, Ky , it was

Resolved, That the thanks of the Association is hereby tendered the medical profession and citizens of St Louis for the cordial and generous reception we, as members, have received at their hands, and we take this occasion to assure them that we take our departure with regret, bearing with us the highest estimation of the generosity and liberality of its citizens, the beauty and healthfulness of its location, at the junction of the two longest and largest navigable rivers of our continent, in the centre of one of the most extensive and fertile agricultural regions of the world, rendering it one of the great commercial and manufacturing centres of the nation, as well as a seat of education, refinement, and the fine arts

Resolved, That our especial thanks are extended to the ladies of St Louis for the elegant social entertainments we have enjoyed at their hands, and as an acknowledgement we can only say, God bless the ladies of St Louis

Dr J M Keller offered an

AMENDMENT TO THE BY-LAWS,

making the officers of the Sections again nominative by the Committee on Nominations To lay over until 1887

Drs N S Davis, Ill , and J B Johnson, Mo , having been appointed for the purpose, conducted the President elect, Dr E S Gregory, of St Louis, to the Chair He was introduced by the President, and in taking his place returned thanks to the Association for the honor conferred upon him

The President then bade the members farewell in a felicitous manner, and declared the Association adjourned W B ATKINSON, M D ,

Permanent Secretary

FOREIGN CORRESPONDENCE

LETTER FROM PARIS

(FROM OUR OWN CORRESPONDENT)

Bad Effects of Cocaine in Glaucoma—Societe Française d'Ophthalmologie—Henri Legrand du Saulle

Like most good things in this world, cocaine, which has been so enthusiastically adopted in ocular therapeutics, has proved to have had its reverses, as pointed out by Dr Javal, at a recent meeting of the Academy of Medicine It is known in ophthalmic practice that the instillation of atropine into an eye affected with glaucoma, or even predisposed to that affection, produces a most disastrous effect, and often brings on paroxysms of violent pain in the eye Although this fact is known, yet atropine continues to be applied in glaucomatous affections, but it is presumed only in cases where there has been an error in diagnosis According to Dr Javal, cocaine produces the same deplorable results, for in many cases that came under his own observation the condition of glaucomatous eyes had become aggravated by the use of this agent, and that in certain cases in which the symptoms of glaucoma were scarcely perceptible, cocaine rendered them more marked These symptoms, however, may be successfully combated by the employment of eserine Dr Javal prefers the latter in the form of gelatine discs to that of solution, as being more convenient These remarks offer a very great interest in ophthalmic practice, and also as regards the pathogenesis of a malady concerning the nature of which there is still such a diversity of opinions Divers theories have been proposed to explain the action of cocaine, and while certain authors, as Pfluger, attribute the anæsthetic effect to direct action of the drug on the terminal fibres of the fifth pair of nerves, others, like Eversbusch, think that the contraction of the smaller arteries and the capillary anemia which results are probably the essential cause of the loss of sensibility

The practical fact on which attention should be directed, is that the nutritive activity of the parts af fected is for some time diminished, and that when this nutrition is already weakened, as in persons old and debilitated, the free use of cocaine exposes the patient to certain risks as regards the vitality of his tissues. Hence, it would be imprudent to permit old and enfeebled persons to employ solutions of cocaine except under the direct control of a medical man.

I have taken these remarks from *La France Medicale*, which were published in that journal by Dr. Chevallereau, a rising ophthalmologist, who also gave one or two examples that came under his own observation, of the danger attending the indiscriminate use of cocaine. Among others I may cite the case of a young man aged 20 years, who had been treated for syphilis contracted at Senegal. The patient had a very severe attack of exudative iritis accompanied with increased intra-ocular tension, and the most intense pain, which induced the doctor to practise paracentesis of the cornea. A two per cent. solution of cocaine had been instilled into the eye four times at intervals of five minutes before the operation. After the paracentesis, a compressive bandage was applied which was removed only the next morning. The patient went on well, he passed a good night, but during the last fortnight the pains were so intense that they prevented sleep. The wound in the cornea healed, but there was in its immediate vicinity a slight cloudy infiltration of the cornea. The doctor prescribed the renewal of the instillations of atropine, but the nurse who was attending the patient dropped into the eye by mistake a solution of cocaine, which she repeated five times during the day. The next morning the cornea became opalescent for about two thirds of its extent. Fortunately the error was discovered in time, when the atropine was resorted to, and in two days after all was right again.

The "Société Francaise d' Ophthalmologie" held its annual meeting at Paris from the 27th to the 29th of April, under the Presidency of Professor Gunning, of Amsterdam, when many interesting papers were read before the Congress. The first subject brought to notice was that of Dr. Dianoux, of Nantes, on "The Treatment of Sympathetic Ophthalmia," and submitted for consideration three methods of treatment in a surgical point of view, viz. Exenteration, enucleation, enervation. Of the three methods Dr. Dianoux gives the preference to enervation, on the following grounds. In the first place, it is less dangerous than the other two operations. In an esthetic point of view, it is interesting to know that after enervation the eye does not become atrophied, and that in consequence it preserves the satisfactory appearance of a normal organ. Moreover, it should not be forgotten that enucleation is often rejected by patients with horror, who on the contrary readily accept an operation like enervation. This operation consists in dividing all the nerves which go to the globe of the eye, the optic nerve being included.

Enucleation, Dr. Dianoux states, does not act in any other way than as a preservative against sympathetic ophthalmia, and it is by the division of all the nerves of the eye that this operation is efficacious. If, then, the effect of the two operations is identical, enervation should certainly be preferred, because in producing the same effect the organ of vision is preserved in its place, which is of course of inestimable value, even though the function be destroyed. As for exenteration, he rejects it in toto on the grounds that the ciliary nerves might become painful and serve as conductors to sympathetic phenomena, and the lymphatic sheaths would remain open to all sorts of infection. From the debate that followed some prefer enucleation (Abadie and Galezowski), others exenteration (de Wecker). Galezowski stated that of 600 enucleations, he had only two cases which proved fatal, one of which was caused by hæmorrhage, which it was impossible to stop.

I have just received a notice to attend the funeral of Dr. Henri LeGrand du Saulle, who died on the 5th inst. at the early age of 56 years, from cerebral congestion. He was a very distinguished member of the profession, and besides being physician to the Salpetriére Asylum, he held many official appointments appertaining to his specialty as an alienist, in which capacity he was one of the leaders. A. B.

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Extra-uterine Fœtation—The Etiology of Potts' Disease—Foreign Bodies in the Œsophagus—Alumni Association of the Woman's Hospital—New York Academy of Medicine.

At the last meeting of the New York County Medical Association, held May 17, Professor Wm. T. Lusk made a very impressive address on the subject of *Extra-uterine Fœtation*, his remarks being based on a case which presented many points of unusual interest. The patient was a lady of Wisconsin who ceased to menstruate in September, 1883, and about a month afterward had several attacks of acute paroxysmal pain, one of which was of intense severity. After that pregnancy apparently progressed in a perfectly normal manner until the middle of June, when the fœtal movements stopped. A month later, believing herself to be in labor, she sent for her physician, who found that the uterus was empty, and that a tumor had developed outside of it.

Although the possibility of the existence of abdominal pregnancy was discussed, the diagnosis of this condition was not made by any of a number of physicians who saw her until she came to this city in February, 1885, and consulted Dr. Fordyce Barker. Drs. Thomas and Lusk also saw the case in consultation, and they concurring in the opinion of Dr. Barker, the patient was advised to return to New York in the following June or September, for the purpose of having laparotomy performed. This advice was not followed, however, and after her return she suffered from what was supposed to be remittent fever, but which Dr. Lusk had no doubt, from the conditions found at the autopsy, was in reality septicæmia from putrid absorption.

In the following autumn her health appreciably failed The pulse became very full and rapid, and she had a good deal of diarrhœa, as well as nervous disturbance In December she was advised to go South and live out of doors as much as possible, but by the time she arrived at Atlanta she was unable to leave her room, and remained thus confined for three months She grew worse all the time, but in the early spring succeeded in reaching New York alive Dr Lusk was called to attend her, and was at once struck with the marked change which had taken place in her condition She had a pinched appearance, and was extremely anæmic The pulse was quick, and there was a rise of temperature every evening There was also constant diarrhœa, or else diarrhœa alternating with constipation Very shortly a menstrual period came on, and this was attended with the most marked constitutional disturbance The temperature ranged from 103° to 104°, the pulse was extremely feeble, and there was enormous distension of the abdomen The husband, however, assured Dr Lusk that there was no occasion for being alarmed, as the same disturbances had been noticed at previous menstrual periods, and had been successfully rallied from It was agreed, therefore, that she should be removed to St Elizabeth's Hospital, and that one week before the expected time of the next menstrual period an operation should be performed, this time being decided on in order to allow her to recuperate as far as possible from the exhaustion incident to the serious febrile condition mentioned

Unfortunately, however, the husband's predictions were not verified, and from this time she declined steadily in health and strength Drs Thomas and Barker were called in consultation, and agreed with Dr Lusk that, on account of the exhausted condition of the patient, an operation offered no hope of recovery—the chances in its favor being about one in a thousand The idea of operating was, therefore, abandoned, but later the husband, having learned from Dr Lusk that it was impossible that his wife, in her present condition, could survive another menstrual period, insisted that the operation should be undertaken, as offering the only possible chance (however remote) of recovery

Accordingly, on the 19th of March, much against his will, he performed laparotomy The incision was made in the median line, below the umbilicus, and it was noticed that the severed tissues were entirely bloodless The abdominal walls being then cut through, the tumor was observed, with portions of the fœtus shining through It was found to be entirely free from adhesions to the abdominal walls, and on this account the question arose whether it would not be advisable to remove the tumor entire Fortunately, as the sequel proved, this was not attempted, and when an incision was made into the sac, a quantity of exceedingly fetid gas escaped There was no fluid present, with the exception of about half an ounce of pus The tumor was stitched to the abdominal walls, and the greatest possible care taken to prevent the escape of any portion of the contents of the sac into the cavity of the abdomen The back of the fœtus was turned uppermost and in the process of extraction both the parietal bones dropped off The cutaneous and muscular tissues were almost entirely destroyed, and all the internal organs were found to be shrivelled up Hypodermic injections of whisky were constantly kept up, and the patient was alive at the conclusion of the operation, which lasted about half an hour, as it was performed with the most careful attention to every detail that would tend to bring about a successful result The patient was placed in bed, and rallied fairly well The sac was kept perfectly clean, and the temperature was normal now for the first time For the first twenty four hours there seemed a slight hope that she might recover, but after that time she grew rapidly worse, and died thirty-six hours after the operation

At the autopsy it was found that the uterus, which was in the rear of the tumor, was about the size of an ordinary virgin uterus The Fallopian tube of the left side extended over to the sac, and its fibres were lost in the walls of the latter, showing that the case was, no doubt, originally one of tubal pregnancy, the tube bursting at the time of the attacks of paroxysmal pain There was not the slightest sign of peritonitis, but the sac was so strongly adherent to the intestines that it took Dr Biggs, who made the autopsy, about half an hour to separate the adhesions It was therefore evident that it would have been practically impossible to remove the tumor entire from the abdominal cavity

This case, Dr Lusk remarked, was chiefly interesting from the fact that the patient fell a victim to what he believed to be wholly erroneous teaching All the authorities say that these tumors should not be removed until the health begins to decline The danger was, that if the evidences of septicæmia were not distinctly recognized, operative interference was apt to be delayed until it was too late The reason often given for delaying to operate was, that in the course of time the fœtus would probably be converted into a lithopœdion, but statistics showed that the number of cases in which this occurs is relatively very small The presence of the fœtal tumor in the abdomen was always a source of constant pain and distress As a matter of humanity, therefore, the child ought to be removed soon after it has ceased to live, instead of being allowed to remain until the appearance of symptoms indicating that the constitution of the mother is already undermined The cases which Dr Lusk had investigated showed that nearly all the patients recover when the operation is undertaken at an early period In itself it was not a dangerous procedure, and the bad results which had been noted in so many instances were due simply to the fact that operative measures were adopted only as a last resort The development of the symptoms denoting putrid absorption was almost always insidious, and there were very few cases in which marked symptoms were presented until quite late in the history The effect of the vicious process going on in the system was primarily in the blood, and afterwards resulted in the degeneration of all the parenchymatous organs

Dr Lewis Hall Sayre read a paper entitled *A Contribution to the Etiology of Potts' Disease*, in which he stated that he was among those who look upon traumatism as the exciting and necessary cause, which in a constitution already vitiated need be much less severe to produce spinal or other lesions than in a person of vigorous health A considerable portion of the paper was devoted to the class of cases in which the disease commences on the sides of the bodies of the vertebræ, at the point of their articulation with the ribs, and not in their anterior portion, as is commonly the case They were usually caused by some violence applied to the rib, which originated an inflammatory process at its articulating facet on the spinal column These cases were more than ordinarily obscure in the beginning, and were difficult of diagnosis, as pressure on the head and crowding the vertebræ together seldom caused pain, and the child could run, and even sometimes jump, without pain, and could often bend the body without inconvenience In conclusion, he related a case of this kind of great interest, and his father, Prof Lewis A Sayre, also made some remarks in regard to it

Dr J W S Gouley then exhibited a peach pit which he said constituted a contribution to the subject of *Foreign Bodies in the Alimentary Canal* A gentleman, 71 years of age, had removed it from his rectum three months after it had been swallowed It was an inch and a quarter in length, seven eighths of an inch in breadth, and eleven sixteenths of an inch in thickness The case was interesting from the fact that this large and sharp pointed body caused no pain or distress whatever in passing through the intestinal canal Dr Gouley then related a case which occurred in his service at Bellevue Hospital The patient was a man suffering from delirium tremens who died soon after admission, and at the autopsy the pericardium was found filled with flaky lymph When the heart was lifted up a metallic substance was felt, and on opening the œsophagus, this proved to be a plate with two teeth attached Dr Gouley also mentioned a number of instances, mostly taken from Eve's Surgical Cases, in which enormous objects such as forks, spoons, and egg-cups, were swallowed, and in some instances passed successfully through the body One of these was a case occurring in 1807, in which a patient swallowed a teaspoon, which was successfully extracted one month afterward by Dr Samuel White, of Hudson, New York, who performed laparotomy, made an incision in the ileum, and, after removing the spoon, sewed up the intestine and the external abdominal wound

Dr John H Hinton said that a negro in his employ once swallowed a peach pit, and having taken a dose of castor oil passed it by the anus the next day, thus affording a remarkable example of an extremely rapid passage of a large foreign body through the alimentary canal

Dr Lewis A Sayre referred to a number of interesting cases occurring in his own experience, some of which illustrated the use of the bristle or umbrella probang, and the President, Dr C A Leale, told of the successful passage of a two cent piece through the intestinal canal of an infant 9 months old Dr Sayre said that for a considerable time he had supposed that the bristle probang was original with him, but had afterwards learned that the same device had previously been used by a medical officer in the British East India Service

The Secretary, Dr Porter, related a case recently reported by Dr C B Hutchings, of California, in which an open penknife passed successfully through the alimentary canal, the patient, a young man of 20, being advised to eat principally of such food as mush and buckwheat cakes, in order to distend the bowels and prevent their being injured in the passage of the knife through them He also referred to the case reported recently to the New York Surgical Society by Dr A G Gerster, in which a metallic button three quarters of an inch in diameter was swallowed by an infant 6 months old, and became imbedded between the trachea and œsophagus

Dr E S F Arnold referred to the celebrated case of Stephenson, Jr, the famous engineer, who swallowed a half sovereign, which passed into the trachea, and finally lodged at the bifurcation of the latter Sir Benjamin Brodie and others tried in vain to remove it, but at length it occurred to Sir Charles Aston Key to place the patient on an inclined plane, with his head down A sharp blow was then given upon the soles of the feet, and the plan proved so efficacious that the coin was jerked completely out of his mouth Dr Arnold also told of a case full of jack knives in every stage of decomposition and absorption, all of which came from a sailor who was ambitious to emulate the feats of a juggler whom he once saw at Liverpool He lived for nearly two years after commencing the practice of swallowing jack knives, and at the autopsy the knives and parts of knives were found in various portions of the intestinal canal

At the meeting of the Academy of Medicine, held May 20, Dr Edward G Janeway read a memoir of the late Dr Gaspar Griswold, and also a paper on the diagnosis of diseases of the heart

On the 19th the Alumni Association of the Woman's Hospital held its second meeting, when a number of interesting papers were read, and in the evening Dr T Gaillard Thomas tendered the Association a reception at his new and beautiful residence on Madison Avenue, just completed, which proved to be a most delightful house warming

The statement made in the New York letter published in THE JOURNAL of May 1st, that a Fellow of the New York Academy of Medicine who was interviewed by a certain member of the Council told that gentleman to "go to h—ll," proves, after all, to be incorrect It is learned on the highest authority that the Fellow referred to was perfectly courteous in all that he said, and that no language in any way approaching the character of that reported was used during the interview Your correspondent would not, of course, have mentioned the matter at all had he not secured the alleged facts in a direct manner, and from, as he supposed, an absolutely reliable source It is now evident, however, that the latter was misinformed, and as it is his aim to present only the simple truth, and that no injustice should be done any one by him, he makes this correction with pleasure

The proposed amendment to the constitution providing that the Academy may suspend or expel a Fellow for "the commission of any act which unfavorably affects the character of the medical profession or the interests of the Academy," will probably be acted on at the first meeting in June

P B P

NECROLOGY

GREENBURY R HENRY, M D

Dr Greensbury Ridgely Henry, of Burlington, Iowa, died on May 14, 1885, of disease of heart and lungs Dr Henry was the son of Dr John Flournoy and Lucy S (Ridgely) Henry, and was born at Hopkinsville, Christian County, Ky, on September 28, 1828

He obtained his education at Jacksonville, Ill, studied medicine with the late Prof Gross, and graduated at the Medical College of Louisville on March 5, 1849 He entered upon the practice of his profession in Burlington in 1850, and soon established an enviable reputation for learning and skill in his profession, a reputation that increased with his years He was well known throughout the State as a leading member of the profession For several years he was a member of the School Board of Burlington, re elected again and again, giving evidence of the public estimation of his peculiar fitness for the place The State also honored him with the appointment as trustee of the Hospital for the Insane—this position he held at the time of his death

Aside from his superior professional qualification and attainments, and his great worth as a healer of the ills of his fellow men, he was a liberal and energetic citizen, ready at all times to invest his earnings in public enterprises, and thus aid and promote the growth of the City of which he was a most valuable citizen

Dr Henry was a man of bright intellect, a high sense of honor, and undoubted integrity He was a physician of learning and skill, always thoughtful and kind, particularly to the younger members of the profession He was a warm and steadfast friend, a thoroughly good man In 1850 he was married to Catherine Chambers, of Jacksonville, Ill She survives him with several children The Board of Trade, the Des Moines Medical Society, the School Board and several other organizations held special meetings and passed resolutions of respect for the memory of Dr Henry, and attended his funeral

MISCELLANEOUS

Wisconsin State Medical Society —This Society will hold its annual session of 1886 in Madison on June 1st and 2d Many papers of interest are announced The railroad rates are full fare going and one fifth returning, on presentation of certificates of attendance from the Secretary

Prevention of the Introduction of Contagious Diseases —In order to assist local authorities in the maintenance of quarantine against the introduction of infectious diseases, as provided in Section 4792, Revised Statutes, the act of April 29, 1878, and appropriation acts authorizing the President to maintain quarantine at points of danger, the President has determined to establish, by means of the vessels of the Revenue Marine, a National patrol of the coast of the United States, so far as it may be practicable under existing law and consistent with the performance of the other duties confided to that service

The following regulations will be observed relative to the inspection of vessels If a vessel be found with sickness on board, or in a foul condition, she will be directed to proceed to quarantine station herein before indicated, and the revenue marine officer will immediately notify the proper quarantine officer In such case no person will be permitted to board the vessel until the medical officers in charge of the quarantine shall have given the usual permit Should the pilot or master of a vessel, when hailed, report cases of recent or present sickness on board the revenue officer will not board, but will send her immediately to quarantine

Quarantine officers will be recognized as follows, viz Medical officers are acting assistant surgeons of the Marine Hospital Service in charge of Gulf, South Atlantic, Cape Charles, or Delaware Breakwater quarantines, or any officer of said service on duty at any port on the interior rivers, the Great Lakes, or Pacific coast, and all quarantine officers acting under proper State or local authority

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM MAY 15 1886 TO MAY 21 1886

Capt F W Elbrey, Asst Surgeon, sick leave of absence still further extended one year on surgeon's certificate of disability (S O 115, A G O, May 17, 1886)

Capt Wm F Carter, Asst Surgeon, granted leave of absence for one month, to take effect about June 1, with permission to apply for an extension of one month (S O 55, Dept Tex, May 11, 1886,)

Capt John M Banister, Asst Surgeon, assigned to duty as Post Surgeon, Ft Canby, W T (S O 75, Dept Col, May 8, 1886

First Lieut C B Ewing, Asst Surgeon, relieved from duty at Ft Leavenworth, Kan, and ordered for duty as Post Surgeon, Ft Supply, Ind Ter (S O 48, Dept Mo, May 13, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING MAY 27 1886

Law, H L, Surgeon, ordered to the U S R S "Wabash,"

Hawke, J A, Surgeon, detached from U S R S "Wabash" and await orders to sea

Ogden, F N, Asst Surgeon, detached from U S S 'New Hampshire" and wait orders

Baker, J W,, Asst Surgeon, ordered for examination preliminary to promotion

Woodruff, Charles E, commissioned Asst Surgeon in the Navy May 17

Henry, Charles P, commissioned Asst Surgeon in the Navy May 18

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, JUNE 5, 1886 No 23

ADDRESS IN SURGERY

THE PRESENT STATUS OF ABDOMINAL SURGERY

BY N SENN, M D,
OF MILWAUKEE, WIS,
ATTENDING SURGEON TO THE MILWAUKEE HOSPITAL PROFESSOR OF THE PRINCIPLES AND PRACTICE OF SURGERY AND CLINICAL SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS CHICAGO, ILL CHAIRMAN OF THE SURGICAL SECTION OF THE AMERICAN MEDICAL ASSOCIATION FOR 1886

(Concluded from page 598)

VIII *Gastrotomy* —The indications for gastrotomy have multiplied with the advances of modern aggressive surgery The following are conditions for which the operation has been performed

1 Extraction of foreign bodies 2 Malignant disease of œsophagus 3 Non malignant stricture of œsophagus 4 Cicatricial stenosis of pylorus Alsberg has collected 107 cases in which the operation was done with a view to establish a permanent gastric fistula for the following conditions Carcinoma 72, syphilitic stricture 2, cicatricial stenosis 16 Of this number, 24 patients survived the operation for more than thirty days Of 22 cases proving fatal soon after the operation, 12 died of diffuse peritonitis, and 3 of phlegmonous inflammation of the abdominal walls

Gastric Fistula —When the operation has for its object the formation of a gastric fistula, it is of some importance to know at what point the stomach can be opened most advantageously by interfering least with its functional capacity The majority of operators have had recourse to Fenger's incision, about two inches below and parallel to the left costal arch Sédillot recommends an incision which should correspond to a point over the middle of the anterior surface of the stomach, claiming that the subsequent traction upon the cicatricial band in this locality would be reduced to a minimum, at the same time there would be no risk of injury to any important blood-vessels Larger argues in favor of making the fistula as near the cardiac end of the stomach as possible, and nearer the lesser than the greater curvature of the organ Berger and Championniere assert that clinical experience and post mortem examinations have shown that the opening is usually made near the pyloric orifice of the stomach, irrespective of the particular method of operation selected by the surgeon They also believe that a fistula in this locality does not impair the functional result When a gastric fistula is to be established, the operation should be done in two sittings The preliminary operation consists in making abdominal section stitching the parietal peritoneum to the skin, thus protecting the soft tissues against phlegmonous inflammation by contact with infectious substances, and fastening the anterior surface of the stomach with Lembert's sutures to the margin of the wound, so as to secure adhesions between the visceral and parietal peritoneum before the organ is opened After two or three days firm adhesions have formed, when the operation is completed, by making a small incision through the wall of the stomach Experience has shown that when the incision is large, it is difficult to prevent the escape of the contents of the stomach through the fistula even by ingenious contrivances, while a small opening is readily kept closed by a well fitting compress

1 *Extraction of Foreign Bodies* —When a foreign body has become lodged in the stomach, and its presence can be ascertained by a well defined complexus of symptoms, or by physical examination, no time should be lost in removing it by gastrotomy, as the foreign body may produce death by interfering with gastric digestion or by producing perforation Under these circumstances the operation is completed by suturing the wound in the stomach after the extraction of the foreign body, in the same manner as an intestinal wound, using the precaution to apply a double row of sutures to secure more efficient and perfect coaptation of the margins of the wound and serous surfaces Absolute and complete physiological rest of the organ is an essential condition for obtaining primary union in the shortest space of time Gussenbauer removed, by gastrotomy, a sword blade 27 ctm in length and 2 ctm in breadth The patient, unfortunately died of septic peritonitis, due to a perforation of the posterior wall of the œsophagus 14 ctm above the cardiac orifice of the stomach, and another perforation in the fundus of the stomach 1 ctm in width Billroth removed successfully a set of false teeth in the same manner, and the patient recovered without any untoward symptoms That the stomach may become the receptacle of strange and most disgusting substances is well illustrated by the cases recently reported by Schœnborn and Thornton, where gastrotomy was successfully performed for the removal of large masses of hair Both patients were hysterical females In Schœnborn's case the mass of hair weighed 281 grammes That these cases are not so exceedingly rare is shown by Thornton, who has collected eight recorded cases

where post-mortem examination revealed that the presence of hair in the stomach produced death without a correct diagnosis having been made or surgical relief attempted

Malignant Disease of Œsophagus —The results obtained by gastrotomy for the purpose of prolonging life in cases of carcinomatous stenosis of the œsophagus are not such as to entitle the operation to the dignity of a justifiable procedure, and yet it must be a source of comfort to the surgeons who continue to perform it to know that the mortality which attends it has greatly decreased since the antiseptic treatment of wounds has been introduced Zesas, for instance, has collected all cases of gastrotomy before and since the antiseptic treatment of wounds was practised During the preantiseptic period, thirty one operations were performed, with the result that only in one case was life prolonged by the operation (Jones)

Of 131 cases operated upon under antiseptic precautions, 28 terminated favorably as far as the operation was concerned In 104 cases carcinoma of the œsophagus furnished the indication for the operation, of which only 17 recovered from the immediate effects of the operation With such a fearful mortality, it becomes a serious question whether the operation is ever justified under the circumstances Zesas, as the result of his investigations, advises that the operation should be performed early, before the patient has been prostrated from the effects of the disease It behooves the conscientious surgeon to ask himself the question Am I justified in submitting a patient suffering from an incurable affection to an operation of such gravity, which at best can prolong life only for a short time? Science, statistics and humanity answer with a positive and unqualified "*No*"

2 *Non Malignant Stricture of Œsophagus* –In non-malignant stricture of the œsophagus, not amenable to more conservative treatment, gastrotomy should be performed, with a view of securing a new inlet for food into the stomach, and for the purpose of affording a more direct route of treating the stricture So far, the operation has been performed by Caponotto, Fagan, Schede, Cérenville, MacNamara, Davies Colley, and Bryant Fagan's two cases died In Schede's and Cérenville's cases, the principal and direct object of the operation—dilatation of the stricture—was not realized The same applies to MacNamara's case Davies Colley's and Bryant's cases were successful in every respect, as the dilatation of the stricture was accomplished and the permeability of the œsophagus was restored, so as to warrant the closure of the fistula

Caponotto's case deserves special mention as it illustrates in an admirable manner the indications for the operation, the method of performing it, and its results The operation was performed at Turin, September 19, 1884 The patient was a boy, five years of age, who had swallowed by mistake sulphuric acid, five months before the operation Soon after the accident, symptoms of stricture appeared He ate and drank with a good appetite, but vomited everything a few minutes after, and in consequence had become greatly emaciated The finest olive pointed bougie could not be passed through the stricture The abdomen was opened at the usual place for a gastrotomy, and the parietal peritoneum united with the skin, and a continued catgut suture that caught only the serous and muscular coat of the stomach, was made to fix the stomach to the wound An antiseptic dressing was applied On the fifth day the stomach was opened and food introduced directly into the stomach The patient improved rapidly The next step was to dilate the stricture, which was done by combined dilatation by means of sounds introduced both through the stomach and œsophagus After one month's treatment, the œsophagus was permeable to food, and the opening in the stomach was closed by another operation Four months subsequently the boy died of tubercular meningitis The autopsy showed that the stomach was slightly adherent to the abdominal wall at the site of the operation The stricture had its location about two ctm above the cardiac orifice, as was shown by a white circular cicatrix

Loreta's method of digital dilatation in non malignant pyloric strictures is deserving of confidence, and the results so far obtained merit imitation of the procedure

3 *Cicatricial Stenosis of the Pylorus* —In the operative treatment of cicatricial stenosis of the pylorus, the surgeon can resort to gastrotomy with subsequent gradual or forcible dilatation of the stricture, pylorectomy, or gastro enterostomy According to Zesas, gastrotomy for pyloric stenosis has been performed twenty seven times with eleven recoveries In these cases, the object of the operation is limited to the direct treatment of the stricture through the gastric wound or fistula If, after opening the stomach, the stricture can be efficiently overcome by rapid digital dilatation, the visceral and abdominal wounds can be closed If, however, this object is not obtained, a permanent gastric fistula must be established for subsequent gradual dilatation, until the permeability of the organ has been restored, when the fistula is closed by another operation It is only proper to remark that the operative treatment of cicatricial pyloric stenosis should be limited to extreme cases of narrow strictures with great dilatation of the stomach, where simpler measures, as a carefully regulated diet, irrigation of the stomach, etc , have proved ineffective in affording relief and maintaining nutrition

IX *Pylorectomy* —It is only a few years ago since Billroth announced to the world the feasibility of partial excision of the stomach for malignant disease by a successful operation upon a human being The members of the medical profession throughout the entire civilized world were unanimous in their admiration of the man who had achieved what appeared to be the greatest triumph of modern surgery The method of operating was modified and improved by other operators, and in a short time the medical journals teemed with accounts of new cases from different sources At the present time we are in a position to decide upon the *justifiability* of the operation In studying the statistics of the cases so far reported, even the most enthusiastic advocate of the operation must feel that the expectations which had been anticipated have not been realized. The science and art of surgery have both been enriched through the labors of many a bold and enthusiastic operator who have demonstrated the feasibility of pylorectomy, but the results obtained must also satisfy every conscientious surgeon that the time has come when the operation should be at least temporarily abandoned until improved methods of diagnosis will enable us to recognize cancer of the stomach early enough to be amenable to surgical treatment.

1. *Malignant Disease.*—Fourteen cases of pylorectomy for cancer operated upon by Billroth were analyzed by von Hacker as to the pathological conditions and the results which were obtained. He divided them into three classes: 1. No adhesions, disease limited to the coats of the stomach. 2. Slight adhesions which were readily separated. 3. Extensive adhesions and metastatic tumors in adjacent organs. Only two of the patients belonged to the first class, one remained well one and three fourths of a year and the other three and one-half years after the operation. In the latter case a tumor returned in the abdominal wall and another in the inguinal region which were removed. The second class embraced seven cases, three died soon after the operation, of the remaining four three died four, ten and twelve months after operation from return of the disease, the fourth suffered from return of the disease six months after operation. The five cases represented by the third class died from the immediate effects of the operation. It can be therefore seen that a favorable result can only be hoped for in cases coming within the limitation of the first class where the disease is circumscribed and has not passed beyond the limits of the stomach. Every one must admit the difficulties which surround the diagnosis at this early stage of the disease, and the unwillingness of the patient to submit to such a grave operation when he is comparatively free from suffering, elements which in accordance with Billroth's own experience would limit operations to exceptional cases. Such statistics in the practice of the most eminent surgeon should definitely settle the question in the mind of any surgeon whose humanity has not succumbed to his morbid desire for transient fame.

Statistics from other sources can show no better results. In sixty-one cases of pylorectomy collected by Dr. Winslow, of Baltimore, 50 per cent. have died of shock within twenty six hours, and of the cases which have recovered not one has lived for three years without recurrence of the disease at the site of the operation. Kramer has collected eighty-two pylorectomies with sixty one deaths. In seventy-two cases the operation was done for carcinoma, fifty five died soon after the operation, of the remaining seventeen only one proved a complete success. It is a source of congratulation to the surgeons of this country that the statistics above quoted are made up almost exclusively of foreign material. While the American surgeon is anxious and ready to adopt all modern innovations and improvements, in this particular instance he has shown a degree of conservatism worthy of his reputation in that direction. When the time has arrived when we shall be able to make an early positive diagnosis of malignant disease of the stomach, pylorectomy will be resuscitated and will find a ready adoption and a hearty welcome on American soil.

2. *Ulcer of the Stomach.*—Rydygier was the first to apply pylorectomy to the treatment of gastric ulcer. He excised a simple ulcer of the pyloric extremity of the stomach with a portion of the head of the pancreas, which was intimately adherent to the posterior surface of the stomach. The ulcer had given rise to stenosis and dilatation of the stomach for which the operation was undertaken. He affirms that resection of a portion of the stomach is a justifiable procedure in arresting hæmorrhage from a perforating ulcer of this organ. Czerny treated successfully a case of perforating ulcer of the stomach by making an incision through the anterior wall through which the ulcer was made accessible to direct operative treatment. The ulcer was excised and the visceral wounds closed. Recovery was complete and permanent. According to the statistics of Kramer pylorectomy has been performed ten times for contracting ulcer of the stomach with four recoveries and six deaths. Cicatricial contraction at the site of operation necessitated a second operation in one case in less than a year after the excision. The danger of secondary cicatricial stenosis would rather tend to indicate the superiority of gastro-enterostomy as a primary operation in these cases, and more particularly so if the ulcer or cicatrix is situated in the narrowest portion of the stomach, the pyloric orifice.

X. *Gastro enterostomy.*—This operation was devised by Wolffler as a substitute for pylorectomy in that class of cases where after an exploratory incision it is found impossible to extirpate the diseased pylorus. The operation is performed with a view to re-establish the permeability of the digestive tract by securing a new outlet to the stomach through the medium of a fistulous communication between it and an adjacent loop of the duodenum or upper portion of the jejunum. An incision is made through the anterior wall of the stomach, the margins of which are accurately stitched to a corresponding incision in the intestine by two rows of sutures applied in the same manner as in cases of enterectomy. As compared with pylorectomy this operation is easier of execution, affords a wider range of application, and implies the infliction of less traumatism, while, on the other hand, it has the disadvantage that the pathological conditions which necessitated the operation are left unchanged.

1. *Malignant disease.*—The mortality following this operation is much less than after pylorectomy. According to von Haeker, Billroth has performed gastroenterostomy nine times in cases of cancer of the pylorus where extirpation could not be practised, of this number five died from the immediate effects of the operation, and four survived the operation and were improved for a short time. Kramer gives an account of sixteen gastroenterostomies for malignant disease of the stomach with ten deaths soon after the operation, one patient died four weeks after from the effects of secondary tumors, the remaining five

onths In one case Billroth and gastroenterostomy simul patient After the excision of the intestines and stomach es and a new outlet for the d by gastroenterostomy The five weeks after the operation nts of the operation it will be t disease of the stomach it has in those grave and desperate was found impossible, hence we nanent results, and although the after pylorectomy, it is question lts that can be obtained by it—ths of alleviation—will compen ate risks of life incident to the

nt stricture of the pylorus.—The ly assign the proper sphere of to the treatment of grave cases of loric stenosis The exclusion of a estine from the digestive tract by of a new pylorus by gastroenteros erfere with the proper maintenance the operation in these cases must be only as a palliative but also as a e The results obtained in this class eed encouraging Kramer has col s, of which three recovered In one ases, a man 20 years of age, the diag e of *ulcus pylori* with cicatricial ste the abdomen was opened the stomach rmously dilated Nothing further was lominal incision was closed As the he patient continued he begged that ation should be performed The abdo ned again and a communication between and duodenum was established by Wolf on, and at the time the case was reported was doing well From the results already must be conceded that gastroenterostomy ecognized as an established and legitimate n the surgical treatment of non malignant nosis

odenostomy.—This operation was devised nbuch in 1880 for cases of inoperable ste he pylorus As the name indicates, it con e formation of an external permanent duo stula for the purpose of introducing food into the intestinal canal It was intended s where the general debility of the patient preclude the propriety of the more grave oper f pylorectomy The operation has been per by Southam and Robertson, but both patients n the day of operation It is not probable e operation will be again repeated

Jejunostomy.—In view of the great mortality lorectomy and gastroenterostomy for malignant e, Pearce Gould planned and executed the ation known as jejunostomy The object for n the operation is performed is the same as in enostomy, only that the intestinal fistula is made lower portion of the intestinal tract at a point re the mesentery is of sufficient length to permit the bowel to be easily drawn forward and stitched to the wound The patient was 43 years of age, whose vital powers were near to fatal exhaustion An incision was made in the median line from an inch below the xiphoid cartilage to within an inch of the umbilicus The disease was found to implicate the pyloric end of the stomach the commencement of the duodenum and mesenteric glands The great omentum was pushed upwards and the upper end of the jejunum was drawn forward and stitched to the margin of the wound with a double row of silk sutures The remaining portion of the wound was closed in the usual manner The patient was nourished by rectal enemata and Slinger's nutrient suppositories On the second day a small incision was made into the bowel through which an ounce each of cream and peptonized beef tea was injected The patient continued very restless and became worse and died of exhaustion sixty six hours after the operation The necropsy showed that the intestine had formed firm adhesions to the wound throughout and that no inflammation had followed the operation

From the experience furnished by this case he believes an incision through the left linea semilunaris would be preferable to the median incision The suture should be so placed that the part of the intestine [illegible] in the wound is that portion exactly opposite the mesentery The opening in the bowel should be across the axis of the intestine, and only long enough to admit the nozzle of a syringe The food should be administered through the fistula in only small quantities at a time and gradually increased When larger quantities are injected they should be given very slowly, so as to allow of their being mixed with the biliary, pancreatic, and intestinal secretions and to prevent distension of the bowel The food should be fluid and acid in reaction, the best articles being cream and peptonized milk and beef tea

Golding Bird performed a similar operation for the same indications some two months later without being aware of Gould's operation The bowel was opened on the third day, when food was administered solely through the fistula When the meal exceeded ten ounces it produced indigestion, in smaller quantities digestion and absorption appeared to be performed in a satisfactory manner The patient improved considerably in health until the ninth day, when through an error of feeding him some food passed into the abdominal cavity, and he died in twelve hours The reporter pointed out that by this operation duodenal digestion could be assured, and there was, for physical reasons, less chance of regurgitation than after gastrotomy, and that the procedure required less interference, in its performance, with other viscera than gastroenterostomy

Interesting as these operations may be from a surgical and physiological standpoint, it is to be hoped that in the future their application will be limited to experiments on the lower animals I have alluded to the different forms of "ostomies" for malignant disease to show how extensively the principles of abdominal surgery have been applied in laudable attempts to afford relief after the disease had passed

beyond the reach of radical measures As a matter of course the results have been so unsatisfactory that future attempts in the same direction should be abandoned as incompatible with the true aim and advancement of abdominal surgery

XIII *Splenectomy* —Accumulated experience appears to have definitely settled the indications for this operation As the result of a study of thirty cases of splenectomy, Credé has come to the following conclusions

1 Adults tolerate removal of spleen without permanent ill results 2 Extirpation of the spleen produces a temporary disturbance in blood production 3 The diminution in blood production is corrected by a vicarious action of other blood producing organs, the thyroid gland and the medullary tissue in bone 4 The physiological function of the spleen consists in effecting a transformation of the white into red blood-corpuscles

During the past year a new case of splenectomy for leukæmia has been reported by Rydygier The extirpated organ weighed six pounds The patient, a woman 31 years of age, died on the following day of hæmorrhage from the abdominal wound The ligature on the main blood vessels involved held perfectly, and Rydygier ascribed the hæmorrhage to imperfect coagulation dependent upon the altered condition of the blood This case brings the total number of deaths from the operation up to eighteen, of which sixteen were of hæmorrhage and two from shock Thus far the only successful case of splenectomy for leukæmia is that performed by Franzolini

As the pathology of splenic leukæmia remains to be explained and the mortality after extirpation has been so fearful, it would appear almost criminal to increase the sad statistics by adding new cases to the number of failures

Splenectomy for visceral injury of the organ can show a splendid record, as of twenty cases collected by Zesas of partial or complete removal of a prolapsed spleen all recovered

Credé extirpated the spleen successfully for cystic disease The incision was made along the outer margin of the rectus muscle on the left side from the costal arch to the crista ilii The pedicle was ligated and the stump dropped into the abdominal cavity The patient, a female, became more and more anæmic for a number of weeks Four weeks after the operation the thyroid gland became swollen and tender The gland returned to its normal condition with the general improvement of the patient a few weeks later Five years after the operation Crede reported his patient as remaining well The temporary change in the blood had passed away and no abnormal tumefaction of any of the blood producing organs could be found

Billroth extirpated a sarcomatous spleen with four ctm of the tail of the pancreas in a woman 43 years of age who had noticed the tumor for seven years The growth had been rapid for the last two years The tumor was firmly adherent to the omentum, small intestines and pancreas, the latter organ was divided with Paquelin's cautery The operation was not followed by any serious symptoms During the third week a microscopical examination of the blood showed a slight increase of the white blood corpuscles The patient was feeling well four weeks after the operation The numerous extirpations of the spleen made by Zesas on animals have demonstrated that it is not an essential organ and that its physiological function in the production of blood-corpuscles is adequately performed by vicarious organs, so that we can safely include splenectomy for visceral injuries and local diseases of the spleen among the well established legitimate surgical procedures

XIV *Surgery of the Gall Bladder* —Recently the gall bladder has been made a favorite object of operative treatment As patients suffering from affections of this organ usually come under the treatment of the physician at first, a brief consideration of the improvements in the surgical treatment of affections of this organ will be of great interest to every physician It requires no argument to show that surgical treatment should not be resorted to as an *ultimum refugium*, but to secure a good result the operation when required should be done before the patient's strength is too much reduced An early operation is the more justifiable as statistics have shown that operations upon the gall bladder are among the safest and most satisfactory within the domain of abdominal surgery

Although the feasibility of the surgical treatment of affections of the gall bladder was indicated by J L Petit and Thudichum, it was applied in practice almost simultaneously by Sims and Kocher in 1878 Sims completed the operation at one sitting, the patient died on the eighth day Kocher made a preliminary operation by stitching the gall bladder to the margins of the wound so as to secure adhesions between it and the peritoneum before resorting to incision and drainage The patient recovered In the absence of positive signs and symptoms, indicative of biliary obstruction, it is exceedingly important to resort to a most careful examination in determining the existence of an over distended gall bladder The anatomical location of the tumor, its relation to surrounding organs, and its connection with the under-surface of the liver are important elements in the differential diagnosis Mr Taylor, of Birmingham, who has had ample opportunity to examine cases of enlargement of the gall bladder with Mr Tait, describes a diagnostic line which appears to be of great value in determining the existence or absence of a distended gall-bladder "This line is to be traced from the normal position of the larger end of the gall bladder near the tip of the cartilage of the 10th rib on the right side, to the opposite side of the abdomen, crossing the middle line slightly below the umbilicus In the direction of this line a distended gall bladder will naturally lie" In view of the comparative safety of an exploratory operation this should be preferred to the more doubtful expedients of exploratory puncture and sounding of the gall-bladder, in all cases where a positive diagnosis cannot be made without resorting to these latter diagnostic measures, which cannot be said to be free from danger or to furnish sufficient information upon which to base a positive diagnosis

beyond the reach of radical measures As a matter of course the results have been so unsatisfactory that future attempts in the same direction should be abandoned as incompatible with the true aim and advancement of abdominal surgery

XIII *Splenectomy*—Accumulated experience appears to have definitely settled the indications for this operation As the result of a study of thirty cases of splenectomy, Credé has come to the following conclusions

1 Adults tolerate removal of spleen without permanent ill results 2 Extirpation of the spleen produces a temporary disturbance in blood production 3 The diminution in blood production is corrected by a vicarious action of other blood producing organs, the thyroid gland and the medullary tissue in bone 4 The physiological function of the spleen consists in effecting a transformation of the white into red blood-corpuscles

During the past year a new case of splenectomy for leukæmia has been reported by Rydygier The extirpated organ weighed six pounds The patient, a woman 31 years of age, died on the following day of hæmorrhage from the abdominal wound The ligature on the main blood vessels involved held perfectly, and Rydygier ascribed the hæmorrhage to imperfect coagulation dependent upon the altered condition of the blood This case brings the total number of deaths from the operation up to eighteen, of which sixteen were of hæmorrhage and two from shock Thus far the only successful case of splenectomy for leukæmia is that performed by Franzolini

As the pathology of splenic leukæmia remains to be explained and the mortality after extirpation has been so fearful, it would appear almost criminal to increase the sad statistics by adding new cases to the number of failures

Splenectomy for visceral injury of the organ can show a splendid record, as of twenty cases collected by Zesas of partial or complete removal of a prolapsed spleen all recovered.

Credé extirpated the spleen successfully for cystic disease The incision was made along the outer margin of the rectus muscle on the left side from the costal arch to the crista ilii The pedicle was ligated and the stump dropped into the abdominal cavity The patient, a female, became more and more anæmic for a number of weeks Four weeks after the operation the thyroid gland became swollen and tender The gland returned to its normal condition with the general improvement of the patient a few weeks later Five years after the operation Crede reported his patient as remaining well The temporary change in the blood had passed away and no abnormal tumefaction of any of the blood producing organs could be found

Billroth extirpated a sarcomatous spleen with four ctm of the tail of the pancreas in a woman 43 years of age who had noticed the tumor for seven years The growth had been rapid for the last two years The tumor was firmly adherent to the omentum, small intestines and pancreas, the latter organ was divided with Paquelin's cautery The operation was not followed by any serious symptoms During the third week a microscopical examination of the blood showed a slight increase of the white blood corpuscles The patient was feeling well four weeks after the operation The numerous extirpations of the spleen made by Zesas on animals have demonstrated that it is not an essential organ and that its physiological function in the production of blood-corpuscles is adequately performed by vicarious organs, so that we can safely include splenectomy for visceral injuries and local diseases of the spleen among the well established legitimate surgical procedures

XIV *Surgery of the Gall Bladder*—Recently the gall bladder has been made a favorite object of operative treatment As patients suffering from affections of this organ usually come under the treatment of the physician at first, a brief consideration of the improvements in the surgical treatment of affections of this organ will be of great interest to every physician It requires no argument to show that surgical treatment should not be resorted to as an *ultimum refugium*, but to secure a good result the operation when required should be done before the patient's strength is too much reduced An early operation is the more justifiable as statistics have shown that operations upon the gall bladder are among the safest and most satisfactory within the domain of abdominal surgery

Although the feasibility of the surgical treatment of affections of the gall bladder was indicated by J L Petit and Thudichum, it was applied in practice almost simultaneously by Sims and Kocher in 1878 Sims completed the operation at one sitting, the patient died on the eighth day Kocher made a preliminary operation by stitching the gall bladder to the margins of the wound so as to secure adhesions between it and the peritoneum before resorting to incision and drainage The patient recovered In the absence of positive signs and symptoms, indicative of biliary obstruction, it is exceedingly important to resort to a most careful examination in determining the existence of an over distended gall bladder The anatomical location of the tumor, its relation to surrounding organs, and its connection with the under-surface of the liver are important elements in the differential diagnosis Mr Taylor, of Birmingham, who has had ample opportunity to examine cases of enlargement of the gall bladder with Mr Tait, describes a diagnostic line which appears to be of great value in determining the existence or absence of a distended gall-bladder "This line is to be traced from the normal position of the larger end of the gall bladder near the tip of the cartilage of the 10th rib on the right side, to the opposite side of the abdomen, crossing the middle line slightly below the umbilicus In the direction of this line a distended gall bladder will naturally lie" In view of the comparative safety of an exploratory operation this should be preferred to the more doubtful expedients of exploratory puncture and sounding of the gall-bladder, in all cases where a positive diagnosis cannot be made without resorting to these latter diagnostic measures, which cannot be said to be free from danger or to furnish sufficient information upon which to base a positive diagnosis cases lived for several months. In one case Billroth performed pylorectomy and gastroenterostomy simultaneously upon the same patient. After the excision of the pylorus the end of the intestines and stomach were closed with sutures and a new outlet for the stomach was established by gastroenterostomy. The patient was doing well five weeks after the operation. From the above accounts of the operation it will be seen that for malignant disease of the stomach it has been resorted to only in those grave and desperate cases where excision was found impossible, hence we cannot speak of permanent results, and although the mortality is less than after pylorectomy, it is questionable if the best results that can be obtained by it—a few weeks or months of alleviation—will compensate for the immediate risks of life incident to the procedure.

2. *Non-malignant stricture of the pylorus.*—The future will probably assign the proper sphere of gastroenterostomy to the treatment of grave cases of non-malignant pyloric stenosis. The exclusion of a short space of intestine from the digestive tract by the establishment of a new pylorus by gastroenterostomy will not interfere with the proper maintenance of health, hence the operation in these cases must be looked upon not only as a palliative but also as a curative measure. The results obtained in this class of cases are indeed encouraging. Kramer has collected four cases, of which three recovered. In one of Rydygier's cases, a man 20 years of age, the diagnosis was made of *ulcus pylori* with cicatricial stenosis. When the abdomen was opened the stomach was found enormously dilated. Nothing further was done, the abdominal incision was closed. As the sufferings of the patient continued he begged that another operation should be performed. The abdomen was opened again and a communication between the stomach and duodenum was established by Wolfler's operation, and at the time the case was reported the patient was doing well. From the results already obtained it must be conceded that gastroenterostomy should be recognized as an established and legitimate operation in the surgical treatment of non-malignant pyloric stenosis.

XI. *Duodenostomy.*—This operation was devised by Langenbuch in 1880 for cases of inoperable stenosis of the pylorus. As the name indicates, it consists in the formation of an external permanent duodenal fistula for the purpose of introducing food directly into the intestinal canal. It was intended for cases where the general debility of the patient would preclude the propriety of the more grave operation of pylorectomy. The operation has been performed by Southam and Robertson, but both patients died on the day of operation. It is not probable that the operation will be again repeated.

XII. *Jejunostomy.*—In view of the great mortality of pylorectomy and gastroenterostomy for malignant disease, Pearce Gould planned and executed the operation known as jejunostomy. The object for which the operation is performed is the same as in duodenostomy, only that the intestinal fistula is made in a lower portion of the intestinal tract at a point where the mesentery is of sufficient length to permit the bowel to be easily drawn forward and stitched to the wound. The patient was 43 years of age, whose vital powers were near to fatal exhaustion. An incision was made in the median line from an inch below the xiphoid cartilage to within an inch of the umbilicus. The disease was found to implicate the pyloric end of the stomach, the commencement of the duodenum and mesenteric glands. The great omentum was pushed upwards and the upper end of the jejunum was drawn forward and stitched to the margin of the wound with a double row of silk sutures. The remaining portion of the wound was closed in the usual manner. The patient was nourished by rectal enemata and Slinger's nutrient suppositories. On the second day a small incision was made into the bowel through which an ounce each of cream and peptonized beef tea was injected. The patient continued very restless and became worse and died of exhaustion sixty-six hours after the operation. The autopsy showed that the intestine had formed firm adhesions to the wound throughout and that no inflammation had followed the operation.

From the experience furnished by this case he believes an incision through the left linea semilunaris would be preferable to the median incision. The sutures should be so placed that the part of the intestine presenting in the wound is that portion exactly opposite the mesentery. The opening in the bowel should be across the axis of the intestine, and only long enough to admit the nozzle of a syringe. The food should be administered through the fistula in only small quantities at a time and gradually increased. When larger quantities are injected they should be given very slowly, so as to allow of their being mixed with the biliary, pancreatic, and intestinal secretions, and to prevent distension of the bowel. The food should be fluid and acid in reaction, the best articles being cream and peptonized milk and beef-tea.

Golding Bird performed a similar operation for the same indications some two months later without being aware of Gould's operation. The bowel was opened on the third day, when food was administered solely through the fistula. When the meal exceeded ten ounces it produced indigestion, in smaller quantities digestion and absorption appeared to be performed in a satisfactory manner. The patient improved considerably in health until the ninth day, when through an error of feeding him some food passed into the abdominal cavity, and he died in twelve hours. The reporter pointed out that by this operation duodenal digestion could be assured, and there was, for physical reasons, less chance of regurgitation than after gastrotomy, and that the procedure required less interference, in its performance, with other viscera than gastroenterostomy.

Interesting as these operations may be from a surgical and physiological standpoint, it is to be hoped that in the future their application will be limited to experiments on the lower animals. I have alluded to the different forms of "ostomies" for malignant disease to show how extensively the principles of abdominal surgery have been applied in laudable attempts to afford relief after the disease had passed

beyond the reach of radical measures As a matter of course the results have been so unsatisfactory that future attempts in the same direction should be abandoned as incompatible with the true aim and advancement of abdominal surgery

XIII *Splenectomy*—Accumulated experience appears to have definitely settled the indications for this operation As the result of a study of thirty cases of splenectomy, Credé has come to the following conclusions

1 Adults tolerate removal of spleen without permanent ill results 2 Extirpation of the spleen produces a temporary disturbance in blood production 3 The diminution in blood production is corrected by a vicarious action of other blood producing organs, the thyroid gland and the medullary tissue in bone 4 The physiological function of the spleen consists in effecting a transformation of the white into red blood corpuscles

During the past year a new case of splenectomy for leukæmia has been reported by Rydygier The extirpated organ weighed six pounds The patient, a woman 31 years of age, died on the following day of hæmorrhage from the abdominal wound The ligature on the main blood vessels involved held perfectly, and Rydygier ascribed the hæmorrhage to imperfect coagulation dependent upon the altered condition of the blood This case brings the total number of deaths from the operation up to eighteen, of which sixteen were of hæmorrhage and two from shock Thus far the only successful case of splenectomy for leukæmia is that performed by Franzolini

As the pathology of splenic leukæmia remains to be explained and the mortality after extirpation has been so fearful, it would appear almost criminal to increase the sad statistics by adding new cases to the number of failures

Splenectomy for visceral injury of the organ can show a splendid record, as of twenty cases collected by Zesas of partial or complete removal of a prolapsed spleen all recovered

Credé extirpated the spleen successfully for cystic disease The incision was made along the outer margin of the rectus muscle on the left side from the costal arch to the crista ilii The pedicle was ligated and the stump dropped into the abdominal cavity The patient a female, became more and more anæmic for a number of weeks Four weeks after the operation the thyroid gland became swollen and tender The gland returned to its normal condition with the general improvement of the patient a few weeks later Five years after the operation Credé reported his patient as remaining well The temporary change in the blood had passed away and no abnormal tumefaction of any of the blood producing organs could be found

Billroth extirpated a sarcomatous spleen with four ctm of the tail of the pancreas in a woman 43 years of age who had noticed the tumor for seven years The growth had been rapid for the last two years The tumor was firmly adherent to the omentum, small intestines and pancreas, the latter organ was divided with Paquelin's cautery The operation was not followed by any serious symptoms During the third week a microscopical examination of the blood showed a slight increase of the white blood-corpuscles The patient was feeling well four weeks after the operation The numerous extirpations of the spleen made by Zesas on animals have demonstrated that it is not an essential organ and that its physiological function in the production of blood-corpuscles is adequately performed by vicarious organs, so that we can safely include splenectomy for visceral injuries and local diseases of the spleen among the well established legitimate surgical procedures

XIV *Surgery of the Gall Bladder*—Recently the gall bladder has been made a favorite object of operative treatment As patients suffering from affections of this organ usually come under the treatment of the physician at first, a brief consideration of the improvements in the surgical treatment of affections of this organ will be of great interest to every physician It requires no argument to show that surgical treatment should not be resorted to as an *ultimum refugium*, but to secure a good result the operation when required should be done before the patient's strength is too much reduced An early operation is the more justifiable as statistics have shown that operations upon the gall bladder are among the safest and most satisfactory within the domain of abdominal surgery

Although the feasibility of the surgical treatment of affections of the gall bladder was indicated by J L Petit and Thudichum, it was applied in practice almost simultaneously by Sims and Kocher in 1878 Sims completed the operation at one sitting, the patient died on the eighth day Kocher made a preliminary operation by stitching the gall bladder to the margins of the wound so as to secure adhesions between it and the peritoneum before resorting to incision and drainage The patient recovered In the absence of positive signs and symptoms, indicative of biliary obstruction, it is exceedingly important to resort to a most careful examination in determining the existence of an over distended gall bladder The anatomical location of the tumor, its relation to surrounding organs, and its connection with the undersurface of the liver are important elements in the differential diagnosis Mr Taylor, of Birmingham, who has had ample opportunity to examine cases of enlargement of the gall bladder with Mr Tait, describes a diagnostic line which appears to be of great value in determining the existence or absence of a distended gall-bladder "This line is to be traced from the normal position of the larger end of the gall bladder near the tip of the cartilage of the 10th rib on the right side, to the opposite side of the abdomen, crossing the middle line slightly below the umbilicus In the direction of this line a distended gall bladder will naturally lie" In view of the comparative safety of an exploratory operation this should be preferred to the more doubtful expedients of exploratory puncture and sounding of the gall bladder, in all cases where a positive diagnosis cannot be made without resorting to these latter diagnostic measures, which cannot be said to be free from danger or to furnish sufficient information upon which to base a positive diagnosis

The surgical treatment of the diseases of the gall bladder at present includes three distinct and well defined methods of operation, viz

1 Cholecystotomy with or without the formation of an external biliary fistula

2 Cholecystectomy or excision of the gall bladder

3 Duodeno cholecystotomy or the formation of a new communication between the gall bladder and the duodenum

1 *Cholecystotomy* —At the present time the majority of operators are in favor of finishing the operation at one sitting According to Keen the incision should be made, as a rule, over the centre of the tumor and parallel to the costal arch It should be at least three inches in length and enlarged, if need be, afterward All hæmorrhage must be carefully arrested before opening the peritoneum Through this opening the gall-bladder and common duct are explored by the introduction of two fingers, or if necessary, the whole hand to ascertain the condition of the swelling, its relations to surrounding organs, and so far as possible, the character of its contents If a calculus is found in the common duct an attempt should be made to push it into the duodenum, if this cannot be accomplished it should be forced back into the gall-bladder If no stone is found present, a distended gall-bladder alone is a sufficient indication for incision and drainage The evacuation of the gall bladder is done by aspiration and its wall is subsequently cut to the extent of an inch or more After incision care must be exercised to prevent escape of bile into the peritoneal cavity The margins of the visceral wound are carefully stitched to the abdominal wound and the cavity of the gall bladder, and its duct emptied of their contents

Immediate closure of the gall bladder after removal of its contents, was first suggested by Spencer Wells as appropriate in cases where the surgeon can satisfy himself of the patency of the biliary passages This suggestion was carried out by Mr Meredith, of London, who closed the incision in the gall bladder after the extraction of three calculi, by means of a fine silk thread, introduced as a continuous suture, and inverting the edges of the peritoneal coat The abdominal incision was closed in the usual way, no drainage being employed This patient died in forty-eight hours with suppression of urine At the autopsy the incision in the gall-bladder was found securely closed and quite impervious to fluid He remarks on this method of operating as follows "As regards the method adopted—of dispensing with drainage—I do not feel inlined to recommend it, although there appears to me no reason why it should not succeed in a favorable case, provided always that it was possible to ascertain that no obstruction remained in the ducts This, of course, constitutes the chief difficulty, and may be impossible, so that, on the whole, I believe that the more usual plan of draining the gall bladder should be preferred, at all events in the majority of instances"

Mr Tait has expressed a similar opinion on this subject He states distinctly that it cannot always be accertained with certainty that the common duct is patent, and if this should not be the case the periodical contractions of the gall bladder might cause a giving way of the sutures, and extravasation of bile into the periodical cavity That these fears are not without foundation is well illustrated by the case of cholecystotomy reported by Dr Parkes The case reported by Dr Bernays during the last year on the other hand, demonstrates the advantage of suturing the gall bladder and dispensing with drainage, as the patient recovered in a remarkably short time without any untoward symptoms and without the inconveniences of a temporary fistula As in the majority of cases the safety of the patient is enhanced by the formation of an external biliary fistula, which also enables the surgeon subsequently to treat the interior of the gall bladder and the bile ducts, should this be required it is evident that immediate closure of the gall bladder has only a limited sphere of usefulness, and is applicable only in exceptional cases where the permeability of the biliary passages can be demonstrated at the time of operation As in all other abdominal operations, the results obtained by Mr Tait in the surgical treatment of diseases of the gall bladder stand unsurpassed and preeminent He performed cholecystotomy twenty-one times with as many recoveries From different sources Dr J McF Gaston has collected thirty three cases of cholecystotomy with a mortality of 27 7 per cent, nine having died

2 *Cholecystectomy* —Ligation of the cystic duct and extirpation of the gall bladder was introduced as a substitute for cholecystotomy by Langenbuch He claims for his operation that it is not attended by any of the risks incident to incision and evacuation of the gall bladder, and that in cases of recoveries from the operation it prevents the possibility of a recurrence of the disease and that the chances of a permanent biliary fistula are never incurred He has performed the operation five times, with two deaths, one from acute œdema of the brain, and the other from an ulcerous perforation of the cystic duct Two successful cases are reported by Thiriar and one by Corvoisier

Mr Tait prefers cholecystotomy to cholecystectomy, as being an easier and safer operation, and in case a recurrence of the disease makes a second operation necessary, he claims that the first operation makes the second easier It can be done readily and without any danger through the adherent cicatrix, without any risk of opening the peritoneal cavity

Duodeno-Cholecystotomy —This term signifies an operation for uniting the gall bladder and duodenum, by an opening between them It has been suggested as a surgical procedure almost simultaneously by Harley and McF Gaston, in cases of impermeability of the common bile duct, while the cystic duct is permeable, or may be rendered so by surgical means In regard to such an operation, Harley says "The triumph of modern surgery would be to establish an artificial fistula between the gall bladder and the duodenum For then not alone would the pent up bile be removed, but the disturbances arising from the non admittance of bile into the intestines would likewise be at the same time overcome I am not quite sure if, in these days of antiseptic surgery the operation is not practicable, for I can see no reason why the adjacent surfaces of the gall-bladder and duodenum should not be eroded by potassa fusa and speedily stitched together" Dr Gaston has made this subject an object of patient and persevering experimentation In summing up his results he says "Out of fifteen subjects only three dogs finally survived the primary operation, yet it will be observed that the results of attachment of the gall-bladder to the duodenum and firm union by adhesive inflammation between their surfaces, and the formation of a fistulous opening through this septum, which affords a communication between their cavities"

The *feasibility* of this operation has been demonstrated on animals, but its adoption in practice as a legitimate, justifiable operation can only be expected after a more safe and expedient method of accomplishing the object has been devised, and its applicability has been demonstrated more satisfactorily on animals

XV *Injuries and Surgical Affections of the Liver* —The idea of treating injuries and some of the diseases of the liver by surgical means is not a new one, as Ceccherilli credits his countryman, Zambeciari, with having made experiments on animals with such a view as early as 1680 Experiments and clinical observation have shown that injuries of the liver under favorable circumstances are not only repaired, but that in some unaccountable and as yet unexplained manner, loss of substance is replaced by regeneration Thus Ceccherilli reports, among a number of operations, a very interesting case where he performed excision of a portion of the liver, with the gall-bladder, in a large hunting dog, with Paquelin's cautery The operation was bloodless, and the animal recovered without any untoward symptom The animal remained perfectly well, and was killed 226 days after the operation The autopsy showed a cicatrix in the liver at the site of the operation, and that the organ had been restored to its former shape and size, as was ascertained by comparison with the liver of a dog of the same size From the results of his experiments he advises that in no case should more than one-third of the size of the liver be excised To prevent or arrest hæmorrhage he prefers the actual cautery to the elastic ligature and pressure forceps

1 *Wounds* —That gunshot wounds of the liver are not necessarily fatal, even if no active surgical treatment is resorted to, has been well established by a number of cases where the bullet was found encysted in the organ, without having given rise to any symptoms during life, years after the injury had been received Thus Bilguer found a bullet encysted in the liver four months after the accident Guthrie, Paroisse, and Thompson have each reported a case where, on autopsy, the bullet was found in the gall-bladder, the patient having died with other affections These cases and the results of experiments are only mentioned with a purpose to show that with proper surgical treatment injuries of the liver would not be attended by such great mortality as has been the case on the expectant plan of treatment The two great dangers attending visceral injury of the liver are hæmorrhage and extravasation of bile into the peritoneal cavity In subcutaneous lacerations of the liver, if the symptoms are such as to indicate internal hæmorrhage of a serious nature, the only chance to save life would be to perform abdominal section, and to control the hæmorrhage by direct measures, as without such interference the patient would be almost certain to die of peritonitis, even if he recovered from the effects of hæmorrhage

From the anatomical structure of the liver it is easy to conceive that the arrest of hæmorrhage from this organ is not an easy task Ligation is out of question If the wound has a regular outline and involves the border of the liver accurate coaptation of the wound surfaces with catgut sutures traversing the entire thickness of the organ, would offer a fair chance of controlling the hæmorrhage The needle should be round and not quite as large as the thread of the catgut, so that the punctures would not give rise to additional sources of hæmorrhage If the wound is irregular or located in such a manner as to render suturing impossible, the actual cautery can be used to advantage If this fails to control the hæmorrhage, we have still left at our disposal one of the most reliable and safest means of arresting parenchymatous or venous hæmorrhage, in the aseptic tampon—a tampon made of iodoform gauze If an aseptic tampon is to be successful in arresting hæmorrhage, an aseptic condition of the wound is indispensible In subcutaneous and consequently, aseptic, wounds of the liver rendered accessible to treatment with the tampon by abdominal section, there would be no objection in plugging the wound permanently, closing the abdominal cavity with the exception of an opening for a drainage-tube as near as possible at a point opposite to the visceral wound

Drainage in these cases is required on account of possible extravasation of bile taking place by filtration through the tampon In the course of time the aseptic foreign material would become encysted The use of the tampon for arresting hæmorrhage from the liver was advised by Thesen as early as 1795, and more recently by Brotherson, Demme, and Volkmann In penetrating wounds of the abdomen with visceral lesion of the liver, the same means may be resorted to in arresting hæmorrhage and guarding against extravasation In incised wounds suturing, if possible, should be resorted to, in gunshot wounds the aseptic tampon, with drainage As prolapsed portions of the liver are also usually contused, reposition, as a rule, is contraindicated, and such portions are better removed with a Paquelin's cautery

As aseptic foreign bodies may become encysted in the liver as well as in other parts of the body, no additional injury should be inflicted in order to effect their removal All such attempts are attended by an increase of hæmorrhage and, from the friable nature of the substance of the liver, unless the greatest care is exercised an increase of traumatism is inevitable On these accounts a faithful effort should be made to secure an aseptic condition of the wound so as to obtain the most favorable condition for the healing of the wound, and the formation of a capsule around the foreign body in all cases where extraction cannot be readily accomplished

2. *Abscess and Echinococcus Cysts.*—The treatment of abscess of the liver and echinococcus cysts by abdominal section is based on the same principles which embrace all the precautions which are necessary to obtain adhesion between the parietal and visceral peritoneum at the site of incision. The recognized plan of treatment consists in making an exploratory incision through the abdominal wall over the most prominent part of the swelling, to ascertain the presence or absence of adhesions. If the peritoneal cavity is found obliterated, the operation is finished at once by incising and draining the abscess or cyst. If, on the other hand, no adhesions are found, the surface of the liver is exposed and the wound packed with iodoform gauze and an antiseptic dressing applied, which is allowed to remain for four to five days, until adhesions have formed, when a second operation is made to evacuate the contents of the swelling by incision. If the abscess or cyst is centrally located, and a considerable portion of healthy liver tissue is interposed between it and the external surface of the organ, it is advisable to make the incision with Paquelin's cautery, so as to prevent unnecessary or dangerous loss of blood. Echinococcus cysts are frequently located upon the upper surface of the liver, and on this account are inaccessible to treatment by abdominal section. In such cases the practice of attacking them through an opening in the chest, as has been successfully done by Israel and Volkmann, recommends itself as the safest and most expedient operation.

XVI. *Surgery of the Pancreas.*—The surgery of the pancreas belongs to the future. The physiological function of this organ requires further investigation for a more intelligible interpretation of symptoms when the seat of injury or disease. The only pathological conditions of the pancreas which have been made an object of surgical treatment are cysts. A number of successful cases of this kind are on record where a permanent cure was obtained by laparo-pancreatotomy, or the formation of an external pancreatic fistula. In only one case did the fistula remain permanently, in all the rest the secretion diminished gradually, and ceased definitely with the healing of the fistula. It is to be hoped that the symptomatology of different lesions of the pancreas will be made a special object of careful study and investigation, so that in the future we may be able to recognize and classify the different diseases of this remote organ during life, so that we may be able to resort to laparotomy in affections which may be amenable to direct surgical treatment.

XVII. *Laparo-nephrectomy.*—Although statistics have shown that lumbar nephrectomy is a much safer operation than laparo-nephrectomy, the latter has a a legitimate sphere in cases of large tumors of the kidney, which cannot be removed through a lumbar incision. This operation also enables us to examine the opposite kidney at the time of operation, an advantage which is considered of sufficient importance by Thornton to give this operation the preference in all cases where nephrectomy is intended. Bruntzel has lately removed successfully a fibroma of the capsule with the entire kidney weighing 37½ pounds, by abdominal section, in a woman thirty-three years of age. The tumor had reached this enormous size in five years. It reached from the ensiform cartilage to the symphysis pubis, distending the abdomen equally in all directions. Tympanitic resonance on percussion on both sides of the tumor. Palpation and exploratory puncture showed that the structure of the tumor was firm and solid. An incision was made the entire length of the linea alba. On opening the abdomen the tumor came into view covered by peritoneum, which was divided over the whole length of the tumor. The tumor was enucleated with the kidney and the pedicle, which was composed of the renal vessels, was tied, and after division dropped into the abdomen. The cavity was drained towards the lumbar region and the divided peritoneum sutured. Notwithstanding that a fecal fistula formed subsequently, the recovery of the patient was complete and permanent.

By a similar operation, Hicquet extirpated successfully a retroperitoneal sarcoma, which was intimately connected with the kidney with the latter organ in a girl six years of age. In this case the renal artery and vein were tied separately. For the extirpation of malignant tumors of the kidney or its immediate vicinity, laparo-nephrectomy affords a better chance for a thorough removal of diseased tissue and for controlling hemorrhage, and on these accounts should be preferred to the lumbar operation. Whenever practicable, the integrity of the peritoneal cavity should be restored by suturing, and, if required, drainage established in the lumbar region.

XVIII. *Laparo-nephrotomy.*—This operation is indicated in all cases of hydro-nephrosis and pyo-nephrosis, where from the size of the swelling, or on account of adhesions, lumbar nephrectomy cannot be performed. It is also preferable to the lumbar operation where a positive diagnosis cannot be made, between disease of the kidney and other fluctuating tumors of the abdomen, and in some instances extirpation of a hydronephrotic or pyonephrotic kidney is contraindicated by a disease of the opposite kidney or the general debility of the patient.

XIX. *Tumors of Omentum Majus.*—Tumors of the large omentum give rise early to pain or a sensation of discomfort, by causing traction upon the transverse colon by their weight. As a rule, tumors of this structure are found in the umbilical region, and have no connection with adjacent organs, hence they are movable in all directions, except downward. The differential diagnosis between omental and intestinal tumors in the same region rests upon the complexus of symptoms caused by the latter group, from their anatomical location interfering more or less with the functions of the intestinal tract. In the examination of an omental tumor, it must be remembered that it is in immediate contact with the anterior abdominal wall, consequently its presence will be indicated by an area of dulness on percussion corresponding to the size of the tumor. If the area of dulness remains permanent and unchangable, it would be an indication that the tumor has become adherent, or that the tumor is not omental but parietal.

Primary malignant disease of the omentum, if it could be recognized early, would offer most favorable conditions for successful radical extirpation by abdominal section Cystic tumors and echinococcus cysts are most favorably located for successful treatment by abdominal section and drainage

XX *Tumors of Mesentery* —Aggressive surgery is gradually but surely encroaching upon the most remote tissues within the abdominal cavity, thus extending the benefit to be derived from direct local treatment to the most distant pathological conditions

A few years ago, M Tillaux extirpated successfully from the mesentery a glandular tumor which had undergone degenerative changes The patient was a man, aged thirty one years, in excellent health, who was taken suddenly ill without apparent cause The most prominent symptom was a violent pain in the abdomen, which compelled him to remain immovable for about fifteen minutes The pain recurred after a short interval with unmodified intensity The following day the suffering continued in spite of anodynes, which were given freely He was now removed to the hospital where on examination a round tumor was found in the abdomen, which was thought to be a floating kidney The patient suffered with obstinate constipation and pain for twenty-five days, when the pain became paroxysmal and always aggravated when he attempted to take food He only obtained relief when he sat on his bed bent double, with his head resting on his knees At this time M Millard diagnosticated chronic invagination of the intestines About thirty-eight days from the beginning of the illness, abdominal section was performed by Tillaux The abdomen was opened sufficiently to permit the introduction of the hand, when he found a round tumor about the size of the head of a fœtus at term, situated on the right side of the mesentery which fastened the intestine to the spinal column The tumor was recognized as a cyst of the mesentery This was punctured and subsequently incised and evacuated from it caseous matter, resembling thick cream Catgut ligatures were then thrown around the base of it, tied, and then the whole of the tumor cut off above them The pedicle was touched with a strong solution of carbolic acid, the organs returned, and the wound closed The pain ceased promptly and the recovery of the patient was complete The histological examination of the tumor showed it to be composed of a lymphatic gland containing the products of caseous degeneration This case illustrates that it is comparatively safe to remove tumors of the mesentery by ligation or enucleation, while, on the other hand, extirpation of tumors requiring for their removal the excision of a corresponding portion of the mesentery is a vastly more serious and difficult operation

Wolffler reports a case of this kind In his case a fibroma of the mesentery weighing 1½ pounds was removed with the mesentery and a corresponding portion of the intestine 113 ctm in length The ends of the bowel were brought together with sutures The patient survived the operation only for twenty-four hours Wolffler suggests that in the future enterectomy in connection with extirpation of tumors of the mesentery should be followed by enterorrhaphy only in cases where the site of operation involves the movable portion of the bowel, as the cæcum, transverse colon, and sigmoid flexure, while in other localities no attempt should be made to unite the resected bowel, but the efforts of the surgeon should cease with the formation of an artificial anus That this advice is not tenable in all cases becomes apparent, as, for instance, if the tumor is located in the mesentery of the upper portion of the intestinal canal, the physiological exclusion of such a large intestinal surface would be incompatible with a proper maintenance of digestion, assimilation, and nutrition

My experience on animals in extirpating the pancreas has satisfied me of the tolerance of the small intestine to even extensive detachment of the mesentery If it can be accomplished without producing mechanical destruction of the bowel by flexion it would be advantageous to approximate the vascular supply by suturing the mesenteric wound This course also suggests itself as an important measure in preventing a defect in the mesentery which might subsequently become a source of internal strangulation Hamerton has collected eight operations done for extirpation of tumors of the mesentery of which only one appears to have recovered This case was operated upon by Sir Spencer Wells, who removed a tumor the size of an adult head A microscopic examination showed that the tumor was a spindle celled sarcoma In a recent communication in the London *Lancet* Mr Wells informs us that the patient has remained free from a recurrence of the disease and remains otherwise in good health since the date of operation, June, 1882 In all benign tumors of the mesentery enucleation should be preferred to excision so as to preserve intact as much as possible of the mesenteric circulation

There can be no question but that mesenteric detachment is more likely to be followed by gangrene of the bowel if enterectomy is performed than when the continuity of the intestinal tube is preserved

XXI *Retro peritoneal Tumors* —The extirpation of a retro peritoneal tumor by laparotomy must be looked upon as one of the most serious and difficult operations in surgery Aside of the unusual difficulties encountered in arriving at correct conclusions as to the exact seat and nature of tumors in the retro peritoneal space, the technique for their removal remains to be improved by future research and experimentation

Dr Homans has reported two cases of retro-peritoneal tumors removed by abdominal section In the first case the operation was performed for a myxolipoma in a man 39 years of age, the tumor had been growing for two and a half years The second patient was a woman 60 years of age, suffering from a lipoma The tumor was located in both cases in the right side In the first case another tumor was found in front and toward the left of the spine, which could not be removed Both patients died soon after the operation

In the first case the mesentery of the ascending colon was detached to gain access to the tumor Homans very properly warns against such extensive deprivation of vascular supply to the bowel in this particular locality He advises, under such circumstances, either enterectomy and enterorrhaphy, or the formation of a preternatural anus It would seem that in some of these cases, where the tumor is of moderate size, the operation would be easier, and the results better, if a lateral abdominal incision were made without opening the peritoneal cavity In approaching the tumor through the peritoneal cavity after dividing the overlying peritoneum, the enucleation of the tumor should be accomplished by the use of blunt instruments, and with special care to preserve the integrity of the mesenteric vessels so as to avoid, if possible, the necessity for enterectomy and enterorrhaphy

The foregoing fragmentary and imperfect sketch of the Present Status of Abdominal Surgery will, I hope, at least serve the purpose of impressing upon you the importance and magnitude of this, the most recent, department of surgery I have attempted to allude to the defects as well as the advances, the failures as well as the triumphs The results already obtained by the surgical treatment of injuries and diseases of the abdominal organs, are indeed gratifying, and bear abundant evidence of the good and faithful work which has been accomplished The greatest achievements of abdominal surgery, however, necessarily belong to the future This new territory, only so recently acquired by the surgeon, has been only partially explored New operations will be devised and old ones improved Diagnosis will be made more certain by a careful study of symptoms, a more thorough knowledge of physiology and pathology of the abdominal organs Experimental research will clear up many obscure points in the causation of disease, which will lead to new and improved methods of treatment With all these prospects before us, let us not remain idle Abdominal surgery is of American birth Let us cherish our own offspring The world holds us responsible for its healthy growth and development McDowell, Gross, Sims, the distinguished fathers of Abdominal Surgery, have left us in charge of an important and sacred trust Let us labor in this department honestly, unceasingly, zealously, as faithful guardians of the promising infant until it shall have attained vigorous, perfect manhood, a source of pride to its illustrious parents, a perpetual fountain of blessing to suffering humanity, and a priceless honor to American Surgery

---

A RAPID EVACUATOR FOR LITHOLAPAXY ACTING BY A CONTINUOUS CURRENT, ALSO A NEW METHOD OF ATTACHING FILIFORM GUIDES TO STRICTURE INSTRUMENTS[1]

BY EDMUND ANDREWS, M D , LL D ,
SENIOR SURGEON TO THE MERCY HOSPITAL CHICAGO

The operation of litholapaxy, or lithotrity at one sitting, derived much of its marvelous success from the improved rubber bulbs and metallic tubes devised by Bigelow for the evacuation of the fragments of stone Yet Bigelow's evacuators, and also those of Sir Henry Thompson, have this serious defect the rubber bulb makes suction only for an instant When it reaches the limit of its expansion, it suddenly stops the outward current from the bladder, and arrests *in transitu* a row of fragments of stone lying along the whole length of the tube, which at the next compression of the bulb are all thrown back into the bladder Thus a large part of the fragments are pumped out and in many scores of times before they finally escape, and the evacuating stage of the operation is tediously prolonged, often lasting thirty or forty minutes At the same time the inflamed bladder is irritated by the repeated forced expansions, and by the pelting of sharp fragments continually shot back into it

Obviously what is needed is a continuous current moving always in the same direction This idea has occurred to many persons, I presume, for since commencing investigations in this direction I have received letters suggesting analogous thoughts and plans from different physicians, especially from Dr W H Graves, of Lexington, Ill , and Dr M B Cochran, of Davenport, Iowa After calculating the mathematical forms and proportions best adapted to the end, and corroborating the conclusions by experiment, I have succeeded in having the following apparatus constructed by E H Sargent & Co , which evacuates the fragments with a rapidity much beyond my expectations It consists of the following parts

First, a double chambered evacuating tube represented in Fig 1, which may be either straight or curved The straight ones are the best They must be very carefully constructed as follows The straight part consists of a cylindrical tube of very thin metal with an outside diameter of 8½ millimetres, and terminating in a rounded tip having a fenestrum like Bigelow's This is the evacuating part, and it is made cylindrical with the largest admissible calibre, so as to permit the largest possible fragments to escape through it Its outer end is bent downward as in the cut, and terminates in a piece of rubber tube 9 centimetres long and 1 centimetre inside diameter, for a purpose presently to be mentioned

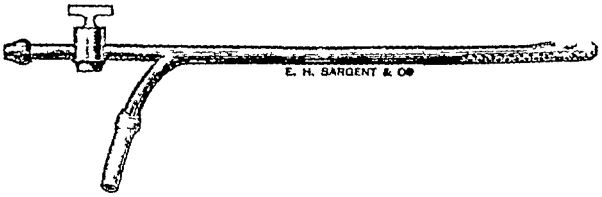


FIGURE 1

Along the under side of the straight portion of this outflow tube is soldered a thin concave semi cylinder making an inflow chamber which, so to speak, is wrapped half around the outflow tube, giving the whole an oval cross section with an outside circumference of about 31½ millimetres (see Fig 2) The diameter, A B, of the cylindrical part is 8½ millimetres, and the depth, B C, of the inflow chamber is 2 millimetres The inflow channel terminates in forty perforations, each 1 millimetre in diameter The

---

[1] Read before the Chicago Medical Society, May 17, 1886

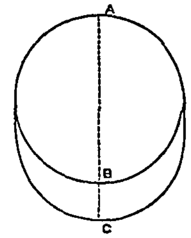


Figure 2

outer end of the inflow tube projects in a straight line beyond the curve of the outflow, and terminates in a cylinder 10 millimetres inside diameter and having a stopcock of the same calibre. Great pains must be taken by the manufacturer to have no drops of solder or other obstructing material in the narrow inflow chamber.

To the outer end of the inflow tube is attached a rubber tube with an inside diameter not less than 1 centimetre, and a length of about 3 yards. The further end of this rubber tube attaches to a metallic strainer large enough to admit without resistance all the water which will flow through the rubber tube. A disc of ordinary perforated sheet metal 3 inches in diameter, with orifices less than a millimetre, will transmit the requisite quantity of wash.

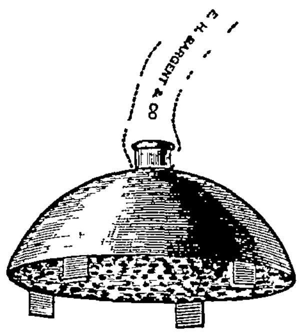


Figure 3

A bucket filled with warm carbolized water having a strength of 1½ per cent. is hung over the foot of the operating table at such a height that the surface of the water will be about forty two inches higher than the patient's pubis. The hydraulic pressure generated by this height will deliver through the tube a current swift enough to sweep the fragments out of the bladder very rapidly. A metallic guard prevents the rubber tube from being compressed where it rests upon the rim of the bucket. The method of use is as follows. The long syphon rubber tube is connected to the strainer, and the latter dropped into the bucket of warm carbolized water. The tube is filled and connected with the evacuator, the stopcock being closed.

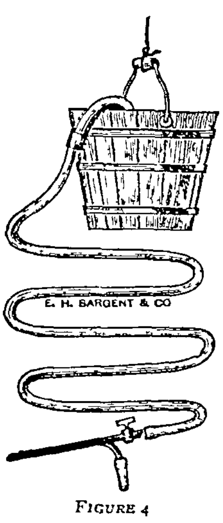


Figure 4

The patient is now anæsthetized, and the stone crushed in the usual way. When the comminution is thought to be sufficiently accomplished, the evacuator is inserted into the bladder with the fenestrum towards the patient's head, and held at a steep slope so that the tip presses the bottom of the bladder gently down towards the rectum, making a funnel-shaped depression into which the fragments tend to fall. Now turning the stopcock, the fluid is admitted, and rushing through the inflow division, it enters the bladder by the small perforations, sweeping the fragments rapidly around into the fenestrum of the outflow tube, thence outward into a basin placed between the patient's thighs. The current being continuous and always in one direction the evacuation is accomplished with remarkable rapidity. In a recent case in which I tried it, the fragments made by crushing a hard oxalate of lime calculus over one inch in diameter were almost completely swept out in ten seconds, when perhaps twenty-five minutes of churning to and fro with Bigelow's evacuator would scarcely have accomplished the same result. Some sixty seconds more of the current sufficed to remove the last minute particles remaining. Having observed the slowness of Bigelow's apparatus by using it in some thirty cases, I was deeply impressed by the shortening of the operation effected by means of the continuous current.

There is one obstacle which affects my own and Bigelow's evacuators alike. If the crushing of the calculus is not pretty thorough, several large pieces may roll against the fenestrum at once, and lodging against each other in an arched form, obstruct the outflow, or a single piece too large to pass may do the same thing. I meet this difficulty in a very simple way. The last four inches of the outflow pipe is of rubber. When the sudden scantiness of the stream shows that the fenestrum is blocked, the operator compresses the end of the short rubber outflow pipe between his thumb and finger, and then with the thumb and finger of the opposite hand suddenly compresses the tube just above. This forces a short but strong pulsation back into the bladder and dislodges instantly the obstructing fragments.

The wash should always be of warm carbolized water, to which, perhaps, a little cocaine might advantageously be added. The carbolized water blunts the irritability of the nerves of the bladder and thus prevents shock, while it also leaves the cavity in a thoroughly antiseptic condition and tends powerfully to prevent cystitis.

In addition to the apparatus just shown I beg leave to call attention to a new method of attaching filiform guides to stricture instruments. The methods of connecting them heretofore have been two. First, by a small female screw on the butt of the guide which fits a male screw on the tip of the instrument. As the whalebone guides have not been fitted in this fashion, the operator could only connect to one or two of the woven variety usually sold him with his instrument, and could use no others. The second method of connection has been by a small orifice or tunnel through a knob at the tip of the instrument, which slides over the whalebone guide and thus attempts to follow it through the stricture. The trouble

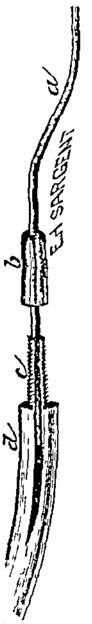


Figure 5
Enlarged
2 diam

with the tunnelled instruments is that in a tight stricture the whalebone clings so closely to the steel that frequently it will not slide It is greatly to be desired that a stricture cutter or divulsor should be capable of being attached to any guide whatever which is found to pass the stricture

The cut shows on an enlarged scale a plan which works well A is a filiform bougie, either woven or of whalebone B is a nut or female screw made to fit the split screw C The split extends a little distance into the staff of the instrument D, so as to give the two parts the elasticity of a spring, and the jaws are roughened so as to hold the bougie with a firm grip

In using the instrument, the surgeon tries his various filiforms until he finds one which passes the stricture Leaving it *in situ*, he slips the female screw or nut B upon the bougie, next opens the split screw and closes it upon the end of the bougie, and secures it by screwing on the nut B His guide is now firmly held, and will generally lead the instrument successfully through the stricture

No 6 Sixteenth St , Chicago

MEDICAL PROGRESS

The Rectum in the Young —At the meeting of the Obstetrical Society of New York on, February 16, Dr Jacobi read a paper on this subject, of which the following is a brief synopsis The hollow of the sacrum being less curved in the child than in the adult, the rectum is shorter, straighter, and more uniform in shape, hence liquid or semisolid feces, after passing the sigmoid flexure in the infant, are rapidly evacuated In the embryo the intestine is formed in sections, the excess occurring in the descending colon and sigmoid flexure, the latter may have a length of even thirty cm , whereas in the adult it seldom exceeds twenty cm Because of the small size of the infantile pelvis the colon is thrown into folds, so that instead of one, there may be several flexures Clinically, the presence of the redundent intestine is of great interest, from the fact that it may give rise to difficulty in determining the true position of the sigmoid flexure, and may prevent the passage of the intestinal contents, leading to the erroneous diagnosis of complete obstruction The inflammatory conditions of the rectum, catarrhal, diphtheritic, etc , are of the same character as those in the adult A simple proctitis may result from the irritation caused by a foreign body, or may be due to syphilis or tuberculosis Periproctitis occurs rarely after typhoid and pyemia There is no instance on record of cancer of the rectum in an infant Complete fistula are rare in children and are difficult to cure, the incomplete variety are much more common The actual cautery is the only reliable agent to employ in treating them, it should be applied to the entire canal from without inwards

Dysentery —This may be sporadic, endemic, or epidemic The catarrhal and diphtheritic variety are interchangeable As a result of the inflammatory process, the mucous membrane often becomes necrotic Destruction of the glands, and subsequent cicatrization of the mucosa, and contraction of the bowel sometimes occurs The treatment is mostly local Pain in the hypogastrium may be relieved by cold or warm applications Opium is of great value, and is tolerated in full doses, it should be given by the mouth rather than in enemata The best astringents are tannin and gallic acid, lead, nitrate of silver, and iron—all to be given in small doses, but at frequent intervals Bismuth is a valuable remedy, which, in addition to its antifermentative action, serves to protect the mucous membrane In case of ulceration, local enemata should be used, injections of tepid salt solutions, flax-seed tea, etc , should first be given, in order to empty out the bowel, after which astringent solutions are to be introduced A one per cent solution of alum or tannin is generally useful Weak solutions of nitrate of silver (one or two per cent) may be used in subacute cases, but should be neutralized at once with salt-solution

Rectal Polypi —These vary in size from a pea to a hazel nut, or larger They may be single or multiple, sessile or pedunculated, their usual site being just above the internal sphincter They were first described by Stoltz in 1831, Bokay found them only in one out of 2,600 patients, but Dr Jacobi usually meets with three or four cases annually, and has treated about 100 cases, the ages of the patients ranging mostly from two to five years Among the symptoms noted were irregular defecation (mucus or blood sometimes being discharged), with accompanying tenesmus, especially when the polypus was near the internal sphincter or between the two sphincters A red mass might protrude from the anus, and repeated hæmorrhages were not uncommon, the last symptom being almost pathognomonic of polypus The growth is readily felt on introducing the index finger into the rectum, which can usually be accomplished without difficulty The treatment is simple, since the pedicle offers but a slight resistance, and may be tied and cut, or separated by torsion or evulsion, the loss of blood being insignificant Sessile polypi often give rise to no symptoms, and may be caused to shrink up and disappear by using astringent injections

Prolapse of the Anus or Rectum —These are only different degrees of the same pathological condition Weakness of the sphincter may be either congenital or acquired, the latter may result from overstraining as the result of an inflammatory process in the bladder or bowel, fistulæ, abscesses, polypi, etc The mildest form of prolapsus consists in a simple eversion of the anus, between which and the worst variety, in which three or four inches of the bowel protrude and are incarcerated, there are many intermediate forms The indications always are to reduce the prolapsed part, and to retain it in the proper position For the latter purpose a T bandage, or tamponing, with fixation of the nates, has been recommended, plugs of hard rubber or lead are used by others The cause of the prolapsus, whatever it is, ought to be eliminated. Polypi or vesical calculi should be removed, constipation and chronic diarrhœa should be cured. The child ought not to be allowed to defecate sitting upon a low stool, and each passage should be assisted by a large enema.

The swollen mucous membrane must be cleansed by frequent injections, and astringents be applied to it, a one per cent solution of nitrate of silver being recommended; the latter must be neutralized at once with salt-solutions as otherwise it may produce soreness of the rectum, and thus lead to tenesmus, which will increase the existing prolapsus. Excessive hyperemia may be relieved by applications of ice and a four per cent solution of cocaine. In exaggerated cases, the solid stick of nitrate of silver might be applied, or, better, still, the actual cautery, which may be applied longitudinally, transversely, or at several different points. If the sphincter is weak, an induced current, passed through the perineum, is beneficial, sulphate of strychnine being administered hypodermically in daily doses varying from $\frac{1}{60}$ to $\frac{1}{24}$ gr. Instead of the latter, an ointment composed of one part of extract of nux vomica and from twelve to twenty parts of fat or vaseline, may be introduced into the rectum.

Fissure of the Anus.—This is generally regarded as a rare affection in infants, but it is more frequent than is usually supposed. Kjelberg is the only writer who claimed that it is frequent during the first year of life. It generally appears as a narrow, reddish or grayish slit, observed on separating the margins of the anus, seldom extending beyond the sphincter, while the surrounding parts present a normal appearance. The fissure is extremely sensitive to the touch, and an examination frequently causes a contraction of the sphincter that is partly voluntary and partly spasmodic. A milder form of fissure may result from the rhagades of congenital syphilis, or from local skin erruptions. The more severe varieties are due to constipation or the passage of foreign bodies; the former condition may result from a congenital contraction of the sphincter, leading to an accumulation of feces in the ampulla, just above the point of constriction. As a rule, the fissure is situated at the posterior edge of the anus in the median line. The pain during defecation is intense and may last for several hours afterwards, so that the little patient's face becomes haggard and distorted; abdominal pain, tympanites, and other intestinal troubles may co-exist with cerebral irritation and sleeplessness—all of which symptoms may often disappear after a single dilatation of the sphincter. Vesical spasm and dysuria are not unfrequently due, not to the presence of a calculus, but to anal fissure.

Incontinence may occur instead of dysuria, not the paralytic form, but that in which small quantities of urine are passed at a time with tenesmus. In many children the symptoms may be more general; they are restless and fretful, lose their appetite, their sleep is disturbed, and they scream suddenly without any apparent cause. Their stools are frequent, but of the average daily amount and appearance. A polypus and fissure may rarely co-exist in the same patient after the first year of life; there will then be frequent discharges of blood, as well as excruciating pain in the region of the anus. The proper treatment of fissure consists in forcible and instantaneous dilatation of the sphincter, with or without anæsthesia, by the introduction of the two index fingers. The sphincter should be stretched until its fibres are distinctly felt to give way. Boyer advises deep incisions through the sphincter, but these may be followed by hæmorrhage, ulceration, and septic absorption.—*American Journal of Obstetrics*, April, 1886.

MASSAGE AS A THERAPEUTIC AGENT.—In a note on this subject DR. WILLIAM MURRELL says: It is no easy matter to say in what class of diseases massage proves most useful. Unfortunately, its employment has been advocated in many cases, for which it is essentially unsuited. Accurate diagnosis is of the utmost importance, and, the sphere of usefulness of this remedy will, with increased experience, become more accurately defined. My best results have been in infantile paralysis; and it was in consequence of the success achieved in certain obstinate cases of this disease, that my attention, as has been elsewhere stated, was directed to the subject. Progress is often slow, but the ultimate results are most satisfactory. The nutrition of the parts is maintained until new cells in the spinal cord take on the functions of those which have undergone degeneration, or have been destroyed. Massage is, undoubtedly, of much value in many cases of obstinate neuralgia, and succeeds admirably in some forms of muscular pain, such for example, as those described by the late Dr. Inman under the term "myalgia." There is a general concensus of opinion that it is well adapted for the treatment of chronic joint-affections; and most of those I saw treated by von Mosengeil were such as would, in this country, be considered incurable, or would drift into the hands of "bone-setters." There are some diseases of internal organs in which it is, undoubtedly useful. Not long ago, a gentleman, aged 68, came to me complaining of shortness of breath, and increasing disinclination to take exercise. He had been in business, and had led a most active and energetic life. Three or four years ago he retired, and, from that time, experienced a gradual falling off in health. His appetite was poor, his bowels were obstinately confined, and he was nervous and anxious about himself. He was found to have a loud apex systolic murmur, and the heart's action was weak and irregular. I suggested massage, which was carried out systematically four days a week, for a period of six weeks. He improved from the very first, and, before the conclusion of the course, was better than he had been for many months. His appetite returned; his hands and feet were warmer; the bowels became regular; he slept well at night; and his spirits improved in a most satisfactory manner. In other cases of obstinate constipation, especially in women, I have known massage of the abdomen do a great deal of good.

In a well-known group of symptoms from which women frequently suffer, massage is essentially useful. I recently saw a lady, aged 45, or thereabouts, a professional singer, who was laboring under the impression that she was going mad She was so nervous that she was quite unable to accept an engagement, although she had been constantly before the public, and had hardly missed a night for twenty years She told me she felt she was not to be trusted, and that, if left alone she would do herself or her children an injury She was afraid to go near an open window, so great was the temptation to throw herself out, and she even begged that the knives might be removed from the table at dinner These symptoms were greatly intensified after each monthly period, and she insisted that she was suffering from cancer, or some organic disease of the stomach or womb She was restless at night, and would often get up in the early morning, and walk for hours, until thoroughly exhausted She was given full doses of the bromides—a drachm, or more, four times a day—but with only temporary benefit Massage was then tried, and it seemed, to use her own expression, to soothe her, and calm her, and make her forget her troubles The case was a prolonged one, but now, at the expiration of three months, she is much better, and will soon be able to resume her professional duties In several other cases of restlessness and inability to sleep, the same method of treatment has proved efficacious

Dr Graham, of New York, speaks highly of massage in the treatment of neurasthenia He uses it for those "who, in spite of rest, change and medication, have become chronic neurasthenics, the result of business reverses, overwork, worry, loss of relatives, disappointed hopes, or as a sequel of some affection that has existed in some part of the system, but which has recovered or has become of secondary importance" These symptoms may be somewhat ill defined, but I have certainly found massage of the greatest use in what, for want of a better name, has been called "spinal nervous weakness," or neurasthenia spinalis"

In the treatment of corpulence associated with constipation, massage is of much value Some months ago I saw a lady, aged 38, who, as the result of much good living and little exercise, had become inordinately stout She was very short of breath, and was disinclined for exertion of any kind She had been fond of literary pursuits, but even those had lost their charm, and were irksome to her She was extremely irritable, and a source of trouble and anxiety to her friends and relatives Massage was prescribed, and in two months she lost a stone and a half in weight, and improved notably in other respects

For many forms of menstrual disturbance, massage may be safely prescribed I recently saw a young lady, aged 19, who suffered intensely at each monthly period, the pain being so severe, that hypodermic injestions of morphine had to be resorted to Massage of the abdomen and pelvis was prescribed, and from that time there was no return of the trouble Cazeaux has reported several similar cases, in detail In the convalescence from acute illnesses, this mode of treatment is a great help and comfort to the patient There can be no doubt that massage is a very valuable therapeutic agent, and is likely to yield good results in many complaints other than those I have roughly indicated —*British Medical Journal*, May 15, 1886

Effect of Bitters on Digestion —Dr Cheltsoff, chief of Professor Botkin's clinic, thinks that extracts of the so called "pure bitters," which are usually prescribed with the view of stimulating the secretion of gastric juice and of aiding digestion, so far from having any beneficial effect of that kind, are absolutely injurious, inasmuch as they retard the digestive functions He has made a series of experiments with extracts of aurantium, gentian, trifolium, absinthium, calumba, cascarilla, and quassia on (1) gastric digestion, and the secretion of gastric juice, (2) pancreatic digestion and the secretion of pancreatic juice, (3) the secretion of bile, (4) fermentation, and (5) nitrogenous metamorphosis The conclusions at which he arrived were that bitter extracts, even in small doses, interfere with artificial gastric digestion, and also with the gastric digestion of animals, but not to so great an extent Large doses of bitter extracts diminish the secretion of gastric juice, though small doses effect a slight and transitory increase of it, the digestive power of the fluid being, however, in all cases diminished Bitter extracts have no effect on the secretion of pancreatic fluid, but they nevertheless retard hypogastric digestion The action of bitter extracts on the secretion of bile is various, extract of absinthium, extract of trifolium, and large doses of extract of cetrarin, slightly increases it, usually at least, but not invariably, while extract of quassia, extract of calumba, and small doses of extract of cetrarin, have no effect at all Bitter extracts have no anti fermentative effect, and do not hinder suppuration Lastly, assimilation of nitrogenous substance is diminished by the use of these extracts —*Lancet*, May 15, 1886

A Case of Compulsory and Exclusive Backward Movement —In *La Rivista Clinica* of June, 1885, Dr Mazotti reports the following rare case An alcoholist, 66 years of age, was admitted into the hospital of Bologna for the treatment of scurvy After his recovery from this affection, it was found that in spite of the greatest efforts, he could only walk backward, and that after that he had to turn around his own axis These movements, of course, constantly imperilled his life He soon succumbed to pneumonia, and the examination of the brain showed an atheromatous condition of the vessels at the base We wonder that the inspection of the spinal cord was omitted, which might have given some clue for these peculiar symptoms —*Therap Gaz*, May 15, 1886

Photographing the Uterine Cavity —A Swiss physician describes a plan of introducing wadding tampons and laminaria tents into the uterus, by which he has succeeded in dilating the organ to such an extent as to be able, by means of reflectors, to get a complete view of the whole cavity in cases of carcinoma, fibrous polypi, fibromata, and endometritis Not being content with ocular inspection, he has also contrived to obtain photographs of the cavity —*Lancet*, May 15, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE
PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters
Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY, JUNE 5, 1886

A FOURTH YEAR OF MEDICAL STUDY—OF WHAT SHOULD IT CONSIST?

A very few of the medical colleges of this country advise a fourth year of medical study, but by none is it required The catalogues of *most* of these schools do not show that any students are enrolled in the four year course The studies taught in the three first years are just those that are required for graduation The studies of the fourth year consist of supplementary clinical work and in advanced instruction in some of the special branches of medicine

A fourth year of this character is not what most students wish They know that a year or eighteen months spent in a good hospital as house physician and surgeon will enable them to see more and learn more than they could in the fourth year at college The best students will therefore plan to graduate in three years and take their fourth year of clinical and practical instruction in the hospitals Poor students will not spend any more time in study than is required of them These are without doubt the reasons why fourth year courses have not yet become at all popular Three years is too short a time for a proper study of medicine unless the student comes to college well disciplined by previous study, and best of all by a certain amount of scientific study We would suggest, therefore, that in this country to day there is more need of a fourth year introduced at the beginning of the medical course than at the end of the present three years of graded study Such a course would meet the wishes of several classes of students

Frequently the question is asked by parents who have sons 18 or 19 years old desirous of ultimately studying medicine, who have not the means to give them a college education and who yet desire to prepare them a little better for the study of medicine, what and where can they study for a year or two? Many of our literary colleges and scientific schools have longer courses that are well adapted to such cases, but not short courses purposely planned for these students There is a still larger class of students who have a fair English common school education, who know nothing of scientific methods of study and who nearly waste the first year of their medical course in learning how to study As these form a very considerable proportion of the students at medical colleges, and not unfrequently some of the best, it would seem right that they should receive or be provided there with a year's course which should be preparatory to their further study The best of these certainly could readily be induced to take a year of preparation for medicine if a proper course was offered to them, and they would be much benefited thereby What is now most needed by a majority of the medical students is some preliminary, or rather preparatory, education

At least a good English education should be demanded as preliminary to taking up any course in a medical school The four year course that we would suggest would consist of a preparatory year of study and the three courses as now graded in our best colleges Graduates of literary colleges and scientific schools might well be admitted to the second year in this scheme without examination on the branches of the first year

With a good and a broad preparation the details of the study of medicine will be acquired most readily, and they will possess for the student much more interest Frequently students will applaud a lecture devoted to the circulation of blood through the heart as it is illustrated by various experiments or drawings, but when the same lecturer describes the chemical changes that occur in the blood while it passes through the lungs or through a muscle or other organ of the body, his words are devoid of interest, and often to the student of meaning Why is this? In the first place, the student does not appreciate the importance of the subject, in the second place, he is at the time studying elementary chemistry and is not prepared to understand the complex changes that the lecturer describes How much better could a student appreciate the existence of these chemical changes in connection with growth and life if, in a course on general biology, he had studied practically himself the comparatively simple changes effected by the growth of the yeast plant in the air and the medium about it This will illustrate in a measure the necessity for some preliminary knowledge of science A knowledge of chemistry, physics and general biology would throw a flood of light and interest on physiology and pathology Physics and comparative anatomy would bear a similar relationship to human anatomy, both normal and pathological Botany would be especially valuable to the student of materia medica

The subjects that might appropriately be studied during this proposed year would be chemistry, physics, general biology, elements of comparative anatomy, and botany In connection with chemistry there should be an abundance of practical work in the laboratory, and the use of the microscope should be taught in connection with the biological and anatomical studies

The objects that such a course would accomplish would be threefold First, it would give the student a scientific foundation upon which to build a medical education Second, it would make easier and more entertaining some of the most technical parts of medical study Third, it would teach the student scientific methods of thought and reasoning that would enable him better to appreciate science as applied to medicine Such a course would not be an appropriation of studies by a medical school that rightfully should be taught elsewhere, for during many years the medical curriculum in the best schools of the old world has included these branches and they rightfully belong in it

THE DRY TREATMENT OF SIDEWALKS

The visitor in Chicago at this season of the year, and until the snow falls in the autumn, is usually surprised to see the regularity with which the streets are sprinkled by the watering carts, and the equal regularity with which the sidewalks are never moistened except from the clouds The visitor sees it with surprise, and the residents see it and grumble It is not at all unusual to see men, going down town to business in the morning, crossing the street to avoid a cloud of dust which is being raised by an industrious sweeper in front of a dwelling or store, and then recrossing to escape suffocation from the dust raised by the emptying of a barrel of ashes into an ash bin (which generally has a prominent place on the sidewalk) This cloud raising process is usually gone through with three or four times a day, as the breezes with which Chicago is blessed will on no account allow all the dust and sweeping to be deposited in the gutter The dust raised by one sweeper is carried to the sidewalk of the next house, and into the open windows within the vicinity The clouds of dust which frequently pour forth from the door of a business house might sometimes cause a myopic person to raise an alarm of fire, and the smoke from a fire would be much more pleasant in the eyes and nostrils than the heterogeneous dust which salutes and envelops one twenty or thirty times in a walk of a mile

A certain amount of dust in a large city is unavoidable, but it does seem that with a large lake just outside the city limits enough water could be found to sprinkle the sidewalks before they are swept Dust which is chemically clean is unpleasant when deposited on the buccal, conjunctival or Schneiderian mucous membrane, but the typhoon of the desert has the odors of Araby compared with the compound which is sifted into one's nostrils from a butcher's shop or a fish market That the sidewalks are cleansed (?) in this manner is all the more surprising when one notes the manner of cleansing the windows A person takes a cup of water, and repairing to the edge of the sidewalk, or as near to it as possible, projects the water in the direction of the window, a pedestrian usually receiving a share of it After the windows are washed the dry process is applied to the sidewalk, and the window is again ready for the washing of the next day

Will the efficient Department of Health of Chicago look into this matter and see if it cannot be remedied? Dust in large cities, and in large quantities, is not only unpleasant but unwholesome It has been claimed that in times of cholera water should be withheld from the streets, as the cholera microbe will more quickly perish when kept dry But Chicago is now free from cholera, and even if it were not there could be no good reason why the streets should be sprinkled regularly, and the sidewalks kept dry with equal regularity

THE TREATMENT OF HYDATID DISEASE IN MAN

Such is the title of an interesting paper read by Dr W Gardner before a recent meeting of the South Australian Branch of the British Medical Association He classifies the treatment under the three heads of medicinal, expectant and surgical, but one may very properly class the medicinal treatment as expectant in the larger of cases The medicinal treatment can consist only in the administration of drugs which are supposed to cause the death of the parasite, and which must at the same time be innocuous to the patient, and before any conclusions can be drawn, says Dr Gardner, we must prove two things that a hydatid cyst is present in connection with some organ, which is not only very difficult, but absolutely impossible without tapping or aspiration (which may then be reasonably said to have assisted, if not actually produced the cure) 2 If a cure is supposed to have been effected by the use of drugs it is necessary to show the existence of a collapsed and retrograded cyst by post mortem examination And even should these things be done it would be entirely proper for a sceptical person to say that the life history of the hydatid renders it very probable that the death of the vesicle at a more or less remote time is but a natural ending At any rate it is found that among all the reported cases there is not one which may with any certainty be said to have been cured by purely medicinal treatment

We have said that the medicinal treatment may be properly classed as expectant, though the use of the term expectant in speaking of the treatment of hydatid cysts is rather foreign to the usual acceptation of the term, and is only applicable to those cases of cysts of the lungs which have ruptured spontaneously into a bronchus, and not to any unruptured cysts of the lung Of Davaine's 40 cases there were 15 cures and 25 deaths, and of the 15 cures 12 were from the expectant treatment Hearn has recorded 144 cases, with 62 cures and 82 deaths, 45 of the cures being from the expectant treatment, though it may be suspected that Davaine's cases are included in his table Many of Davaine's cases occurred during the early part of this century, when the diagnosis was probably less exact than to day Dr Gardner has records of 24 cases of hydatids of the lung with spontaneous rupture, with 22 recoveries so far as he has been able to keep track of the cases Bird has met with 150 cases of hydatid of the lung, but his monograph gives no statistical details But taking all the statistics at command, it seems that of 212 cases of spontaneous rupture 101 have recovered and 111 have died—less than 50 per cent of recoveries Bruen, in his article on "Pulmonary Hydatids" in Pepper's "System of Medicine," says that 30 or 40 per cent of cases terminate in recovery if the cysts spontaneously burst, death being caused in others by suppuration and exhaustion The very rational conclusion to which Dr Gardner comes is that the expectant method will only be applied to ruptured cysts which are causing little inconvenience, and are in process of cure, and cysts so situated as not to be amenable to surgical treatment

The surgical methods of dealing with hydatid cysts have been given so often they need not be detailed in this place Dr Gardner's general conclusions are that all hydatid cysts of the external surface of the body should, immediately upon the establishment of the diagnosis by the aspirator or hypodermic needle, be incised and the cyst removed, and that hydatids of the lung or abdomen should be first tapped to establish the diagnosis, and, if possible, to effect a cure A radical operation should be made on the appearance of suppuration or of opacity of the fluid He thinks that in the future we will best secure the safety of the patient by resorting to an early radical operation

Dr Frank Donaldson, Jr, is the author of the paper entitled "A Preliminary Account in Regard to Circulatory and Respiratory Changes observed in Animals placed in the Pneumatic Cabinet," an abstract of which was given in The Journal of May 22, p 579, and credited to Dr Frank Donaldson

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, May 17, 1886

The President, E J Doering, M D,
in the Chair

Dr Edmund Andrews exhibited a

NEW EVACUATOR FOR LITHOLAPAXY, AND A FILIFORM GUIDE ATTACHMENT

(See page 626)

Dr W T Belfield opened the discussion by saying that the disadvantages of the ordinary evacuating apparatus mentioned by Dr Andrews were well recognized, and that the apparatus exhibited seemed adapted to remove them It possessed, however, one element of danger, namely, the possibility of undue distension of the bladder through sudden clogging of the exit tube In cases of concentric hypertrophy, where the bladder can contain only three or four ounces, the continuation of the powerful inflow might, if the exit were obstructed, cause serious damage Of course if the clogging is immediately discovered, a prompt use of the stopcock would prevent injury

As to the urethral instrument, he would wish to be sure that the filiform could not be detached beyond the stricture This danger attaches, of course, to all methods of securing the filiform, but would seem to be especially great in the arrangement exhibited The loss of a filiform in a tight stricture is an extremely uncomfortable accident, in several cases surgeons have even made external urethrotomy to recover it

To Dr Andrews's remark that in case of such an accident urethrotomy is readily avoided by inserting a small lithotrite into the bladder and seizing the filiform, Dr Belfield replied that when there is present a stricture so tight as to require patient work to persuade a filiform to pass, a small lithotrite could hardly enter the bladder unless reinforced by a sledge hammer If the urethra is everywhere large enough to admit a small lithotrite, there could be no danger of losing a filiform because there would be no occasion to use one

Dr Fenn wished to know, if the momentum could be increased by increasing the specific gravity of the fluid, what would be the effect of a greater elevation of the reservoir?

Dr Andrews said that the attachment of a flexible guide to the urethrotome is always a source of care lest it become detached This was less liable to occur with his instrument than in the old way In case it should happen the lost guide could be seized and drawn out with a lithotrite

The question of the pressure of the fluids and the strength of the bladder is one of great interest But little is known about it No more force should be used on a distended bladder, certainly, than a normal one could readily endure We get the measure of this to some extent in the pressure of the expulsive power of the organ, which is a safe limit to keep inside of in the absence of other data The pressure which Bigelow's evacuator ordinarily gives may form another guide, as this is known to be harmless The reservoir must not be placed so high as to cause dangerous distension, should the outflow tube become obstructed In practice forty inches had given all the current needed, and this was doubtless a safe pressure to use in any and all cases

Dr James I Tucker read a paper on

UNDIAGNOSABLE MALADIES

These cases generally are not recorded because there is so little about them that is tangible They are perhaps functional derangements simulating organic diseases, sometimes these cases yielding readily to simple remedies, but are puzzling because so evanescent At other times they are graver, often ending fatally and yielding no facts upon post mortem examination which will aid in a correct diagnosis But the list of undiagnosable ailments is rapidly decreasing, for example, Richard Bright in 1827 explained that dropsical effusions are frequently due to diseases of the kidneys, Thomas Addison in 1855 ascribed to disease of the suprarenal capsule the cause of a form of anæmia accompanied by a dingy discoloration of the skin Until recently zoster frontalis was classified among skin diseases, but now with much accuracy it is traceable to disease of Gasser's ganglion Dr Tucker related a case in which a lady had been twice badly frightened and her nervous system had been severely prostrated At intervals she was attacked with an epileptiform seizure, transient paralysis of the entire left half of the body, constriction of the larynx, a state of trance, and finally a trance like state in which she had died This patient's mother, after a period of nervous disorder, had become a paraplegic, her father was temporarily insane, the eldest brother has an undefinable nervous disorder and a younger brother spasmodic asthma, while a sister has attacks of recurrent chorea major In this peculiar group of nervous disorders what is the underlying cause? It is as yet unknown This case illustrated the difficulty which hedges about the diagnostication of hundreds of cases of disease

Dr Pearson illustrated the difficulties physicians have to overcome in making a diagnosis by reason of the fact that they overlook some points in the history of a case, as in a case in which a patient had swallowed a piece of a metal spoon and it had lodged in the duodenum and blocked up the portal vein

Dr W T Belfield presented specimens of

ANCHYLOSTOMUM DUODENALE

These had been referred to him for verification by Dr R W Gelbach, of Mendota, Ill, who had discovered them in the intestines of young cats that had died of anæmia Dr Belfield confirmed Dr Gelbach's identification of the worms, but for further verification sent them to Dr Joseph Leidy, of Philadelphia, who replied he thought they were anchylostoma, although he had never seen authentic examples Dr Belfield said the anchylostoma are small nematode worms, about half an inch long, which inhabit the duodenums of men and cats, and probably of other animals Discovered in 1838, their pathogenic significance was recognized by Griesinger in 1851, who found in them the cause of Egyptian chlorosis They are veritable leeches which fasten themselves to the intestinal mucous membrane and suck the blood of their host When present in large numbers they induce pernicious and fatal anæmia by exhausting the individual's blood In tropical climates, particularly Egypt and Brazil, cases of pernicious anæmia or chlorosis produced by them are quite frequent, in Brazil such cases are quickly cured by administering the pulp of fresh figs, which destroys the worms Quite recently anchylostoma have been searched for and found in patients dead of pernicious anæmia in Germany So far as Dr Belfield knew, Dr Gelbach is the first to discover the worms in the northern States of the Union Their presence in cats makes it probable that they infest human beings also in this latitude The possibility of this cause of pernicious anæmia should therefore be kept in mind, especially when other recognized causes—chronic nephritis, malaria, etc —cannot be detected

Dr E Andrews asked if these worms were ever found in sufficient numbers to cause death, and he was answered affirmatively

Dr W W Jaggard exhibited the head of a

TÆNIA MEDIOCANELLATA,

obtained in the practice of Dr C G Smith The following was the formula used

℞	Chloroformii	ʒi
	Oleores felicis maris	ʒi
	Ol tiglii	gt i
	Aquæ camphoræ	℥ii
	Gum acaciæ q s ft emuls	

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Stated Meeting, April 7, 1886

Vice-President J B Hamilton, M D, in the Chair

Dr J Ford Thompson presented the

SAC OF AN OVARIAN TUMOR

and the following history of the case and operation

Mrs B, age 38, admitted to Garfield Hospital March 9, 1886 First noticed tumor eighteen months ago Four months ago she was tapped in Kansas City and thirty seven pints of fluid withdrawn No trouble followed tapping Her "sickness" had been quite regular all along On admission to the hospital the case book says "General condition excellent, at times suffers severe abdominal pains, skin inactive, tumor nearly as large as before tapping Excellent spirits" Dr Thompson having waited three weeks for the menses, which were overdue, determined to operate, the patient having been properly prepared by baths, mild purgatives, etc

The operation was done on March 11 The incision was made in median line, tumor reached and tapped, thirty six pints of fluid being drawn off The tumor was now found to extend upwards nearly to the diaphragm, and to be closely and generally adherent at that end The incision was continued upwards to umbilicus, the short and thick pedicle drawn out, ligatured, cut and dropped into cavity, while he turned his attention to the adhesions at the other end The incision was again increased upwards, its length being finally about eleven inches Some adherent omentum having been tied and removed, the adhesions suddenly gave way and the sac was removed It was now found that the lower abdomen was full of blood The pedicle was at once drawn out, a second ligatare applied and the stump seared with the thermo cautery All hæmorrhage having ceased, the blood clots were carefully and thoroughly removed There being no oozing from any point that could be seen, the abdomen was sewed up with silver wire except at the lower end, where a drainage-tube was inserted The patient made an excellent recovery from the anæsthetic, without vomiting or nausea There being some pain a morphia suppository, gr $\frac{1}{3}$, was given

March 12 Slept some and rested quietly last night Some nausea this morning Cavity washed out with 2 per cent carbolic acid solution, only small amount of blood serum Temp A M 99 7°, pulse 90, resp 28 P M temp 101°, pulse 108, resp 28 Temp at midnight 100° Milk given during day

March 13 Rested quietly all night Wound dressed as yesterday, looking well, and small quantity of discharge without odor Temp A M 98 8°, pulse 96, resp 20 P M temp 101 3°, pulse 100, resp 20 Suffering from nausea and pain which was relieved by morphia Drainage tube shortened an inch

March 14 Restless all night, nausea, but no vomiting Flatus relieved by rectal tube Wound dressed as before and looking well Temp A M 100 5°, pulse 96, resp 20 P M temp 103°, pulse 118, resp 20 Vomiting frequently during day Champagne given

March 15 Midnight temp 103° Restless and wakeful In the morning nausea and vomiting At 11 A M wound dressed as usual, drainage tube shortened $\frac{1}{8}$ gr calomel every two hours Noon temp 101 8°, pulse 110, resp 20 Enemata of beef tea and brandy every three hours, champagne every hour Consultation 10 45 P M enema rejected and much flatus Temp 101 5°, pulse 124, resp 24

March 16 Slight nausea from champagne Very nervous and sleepless last night Wound dressed Temp 118, pulse 128 Death at 1 25 P M

Autopsy—Abdominal wound healed except where drainage tube Small abscess between two sutures at drainage end and outside the rectus muscle No peritonitis Omentum fresh and no change at points of adhesion Douglas's cul de sac clean On two bunches of intestine which had apparently been in contact with drainage-tube was some plastic material Kidneys not examined

What did she die of? Vomiting began on the afternoon of the third day, although the temperature had been normal in the morning He had talked with her then, and she was in excellent spirits She had passed flatus, so there was no twist of the intestines, although they had been handled considerably in removing clots There was great prostration from vomiting If there was septicæmia it must have been from the stitch hole abscess, which was of unusually rapid formation The thing to be regretted in the operation was the hæmorrhage Such an accident he had never had before, and he thought this time, having made the usual knot (Thomas's), that it was secure He did not, as usual, cut with the cautery, but with scissors, intending to come back to it when he had freed the other end The hæmorrhage was not, however, extreme for a woman of her strength, and was not the cause of the fatal termination Undoubtedly the pedicle, which was very broad, should have been kept in sight

The length of the incision was because of the adhesions He was afraid to use much force, because it was possible that the sac was attached to the gall bladder, liver or stomach, and damage would have been done those organs He therefore continued the incision upwards in order to see Adhesions were very numerous, and a bad prognosis was given He would, however, do such a case, or even a worse case, again, as the probabilities are that it would get well He thought the hæmorrhage was by the cutting of the first ligature The time was fifty-five minutes, most of which was consumed in breaking adhesions and removing clots

Dr E M Schaeffer had examined some suspicious nodules which were found on the inside of the sac He made the following report "The thick portion of cyst wall shows structure of sarcoma or carcinoma, *i e*, large spindle cells in foci and but little fibrous stroma"

Dr J B Hamilton asked the condition of the urine before and kidneys after death

Dr T C Smith asked if it was not possible that in transfixing the pedicle he had punctured an artery What knot was used?

Dr Busey requested Dr Thompson to recapitulate symptoms, beginning at third day after operation

Dr Thompson replied that there had been nothing out of the way with the urine and that the kidneys were not examined at the autopsy He did not think that it made any difference whether an artery was punctured or not, as he used Thomas's knot, which tied everything Beginning at the third day after operation she passed a good night, spirits excellent and temperature normal on morning of third day Pulse 96, resp 20 In the afternoon there was nausea and pain, and the temperature went up to 101 3° Pulse 100, resp 20 On the fourth day she had passed a restless night, nausea, but no vomiting Temp 100 5°, pulse 96, resp 20 Vomiting began this afternoon, the temperature going up to 103°, pulse 118, resp 20 On fifth day the vomiting had continued The midnight temperature was 103° Gave calomel in small doses At noon temperature was 101 8°, pulse 110, resp 20, in afternoon temp 101 5°, pulse 124, resp 24 Much flatus On sixth day, wakeful night At midnight pulse 130 Morning temp 101 8°, pulse 128 Died at 1 25 P M

Dr H D Fry asked if there had been a chill?

Dr Thompson No but there had been a very great change in appearance between the morning of the third day and the sixth day He had never seen such rapid emaciation

Dr Busey Was there any record of the amount of urine?

Dr Thompson None of the exact amount, but the catheter had been used every four hours, and the history simply said plenty of urine passed To a remark by one of the gentlemen Dr Thompson said that he did not attach the same diagnostic importance to the rate of the pulse as to the height of the temperature In reply to a question by Dr Acker he said that antiseptics were used—4 per cent carbolic solution for hands and instruments, iodoform gauze over wound, and over that bichloride of mercury gauze 2 per cent solution of carbolic acid was used for washing out In reply to Dr Smith he said that there was no shock

Dr Smith said that if in transfixing the pedicle an artery be pierced, and if now the pedicle be tied in two halves, the artery is held open and hæmorrhage occurs, the ligature being like two links of a chain

Dr Thompson explained that a third loop was always taken around the entire pedicle

Dr Smith thought that this third loop might be taken *above* the needle hole, in which case it would not stop hæmorrhage

Dr Thompson said that it was usually tied on a level or just below and in any case he did not think hæmorrhage would occur

Dr Smith wanted to know where this hæmorrhage came from Was it the fault of the knot?

Dr Thompson said that every ovariotomist had endeavored to find out a perfectly safe knot, and that it was by no means an easy thing to stop an artery in dense tissue He thought that he had tied this as tight as usual and had used Thomas's knot It is, however, possible that he did not tie tight enough, and he certainly did not cauterize stump as he ought to have done His theory, however, was that the ligature, which was small, had cut into pedicle and hæmorrhage took place from below it

Dr Smith said that it was an important thing to know just where the hæmorrhage does come from, whether from adhesions or pedicle—as a very small hæmorrhage into the peritoneal cavity is a serious thing Adhesions to the bladder were, he believed, the most serious

Dr Hagner said that he had recently seen reported a case very similar to Dr Thompson's The patient had begun vomiting on the third day, and died several days afterwards At the autopsy only a small stitch hole abscess was found out of the way

Dr Busey said that from the autopsy it looked as if septicæmia was the cause of death He did not believe that hæmorrhage or malignancy of the tumor killed the patient here Perhaps if the kidneys had been examined another reason might have been found He thought that the sudden onset of bad symptoms on the third day showed septicæmia

Dr Thompson said he believed himself that it was septicæmia—which was a more or less convenient term when we did not know the real cause It reflects on antiseptic surgery to use this term Nevertheless, it does not upset antisepsis, even when pus is formed, for that may occur in any of the organs of the body unexposed to the air Innocuous pus often occurs in antiseptic surgery, and the surgeon expects it in a certain number of cases

Dr Smith failed to see why Dr Thompson should be surprised at the rapid formation of the abscess

Dr Thompson replied that the time was short for the complete formation of any abscess in previously healthy tissues, but a stitch hole abscess generally takes longer than five days

Dr Busey said that in his previous remarks he had not meant to reflect at all on antiseptic surgery, and he did not believe that it would in all cases save

Dr Hamilton remarked that it was greatly to be regretted that a careful autopsy had not been made, for the whole question turns on what was the cause of death The whole question is now purely one of speculation The operation appears to have been well done, the amount of blood lost at the pedicle trifling, and the theory of septicæmia was open only to the Scotch verdict of "not proven" Was it carcinoma of any other organ? Was it heart clot? He had seen many cases of sudden death from heart clot on the fifth or sixth day after capital operations Was it a sudden failure of the heart? Was it concealed hæmorrhage? All the organs not having been examined, it certainly was impossible to arrive at the cause of death

Dr Toner said that he thought Dr Thompson had not made the difficulties of the operation as prominent as they ought to have been He had been present at the operation and had seen the quantity and solidity of the adhesions, which to him, who was not very familiar with abdominal surgery, seemed appalling

Dr A F A King read a paper on

THE CONSERVATIVE ELEMENT IN DISEASE,

in which, after recalling the titles of his various papers, previously published, on this subject, he proceeded to explain that the element of conservatism must be sought for only in those pathological phenomena that are regulated by *vital* laws, and not in others, such as calculi, emboli, etc , which are either accidental products or formations, determined by *physical* or *chemical* laws, outside the pale of nervous control Neither could any conservative design be discovered, or expected, in many of the pathological phenomena observed after dissolution, because they were *final phenomena*, produced after the body began to die

He next proceeded to explain that the vital phenomena of pathology were *acts* performed by the organism, under the control of the central nervous system, and for the benefit and preservation of that system, by which, indeed, the entire body was owned and governed, and the cessation of whose functions was immediate death Under all circumstances, therefore, if life was to be maintained, the functions of the nervous system must be preserved, pleasantly and by physiological processes if they *can*, painfully and by pathological processes if they *must* Hence many vital processes which *appear* to kill, may all the time have postponed the fatal event, by contributing to maintain the functions and nutrition of the great nerve centres

His conclusions were that in studying the *vital* phenomena of pathology, with a view to understand their natural purposes and conservative design, we must bear in mind *First* That these processes are *acts executed by the body* *Second* That these acts are *authorized*, *regulated*, and *controlled*, by the *central nervous system*, which *owns* the organism, and constitutes the coordinating power by which the whole body is governed, and its forces distributed *Third* That this government is, in every particular, *limited* —limited in *material*, limited in *force*, and limited as to *duration*, and hence, for evident reasons, its conservative designs may fail, and death follow *Fourth* Unless the vital processes of pathology are studied in relation with these fundamental facts, it will be impossible for us to say, with anything like judicial accuracy, what processes are right or wrong, and what destructive or conservative

Dr King further remarked that he had begun with the view of explaining "The Conservative Function of Fever," but that the premises which he had laid down had led him off He said he believed that fever was a conservative process set up by the nervous system in antagonism to some pathological process, and on the whole was not killing but helping to save the patient He said that he had not fully explained this or the above, but as he had already consumed so much time he would stop,

OBSTETRICAL SOCIETY OF PHILADELPHIA

Special Meeting, April 15, 1886

THE PRESIDENT, B F BAER, M D, IN THE CHAIR

W H H GITHENS, SECRETARY

DR M PRICE reported two cases of

EMMET'S BUTTON-HOLE OPERATION

I desire to call the attention of the Society to a novel operation for the diagnosis and treatment of urethral and vesical diseases and accidents incident to parturition, devised and practised by Dr Emmet, of New York, for the past six years In the last edition of his work on gynecology he treats the subject elaborately, and gives it, as in his judgment, the most rational treatment for prolapsus of the mucous and submucous tissues urethrocele, lacerations of the urethra from dilatation or injuries in labor, gonorrhœal inflammation, and abscess in the urethral wall

I desire to report two cases of this operation, in which no other treatment, in my judgment, would have been of the slightest benefit to the patients The operation recommended by Dr Emmet is what he designates as his "button hole operation of the urethra," and may be performed either in the Sims's position or in the lithotomy position The operation consists in opening the urethra from three-fourths to one inch, midway between the urethral orifice and the neck of the bladder, thus giving ample room for inspection of the canal for any growth or condition that may require drainage or operative procedure In those cases where the opening is made for diagnostic purposes simply, the opening may be closed with sutures, or be allowed to close in its own way Many cases of urethral irritation are wonderfully benefited and most of them entirely cured simply by the free drainage it allows The mucous membrane of the urethra and vagina are tacked together in these cases to prevent retraction In the operation for urethrocele, the urethral opening is made through the pouch or dilated portion of the urethra, while a block tin bougie is held in the bladder The opening is continued down into the mucous membrane covering the sound, and a sufficiently large piece of the mucous membrane of the vagina removed to insure the removal of the pouch The mucous membrane is then taken under the sound and drawn through the button-hole opening, so as to obliterate the redundancy of mucous membrane Sutures are then passed from the vaginal surface to the block tin sound and back on the opposite side in the same position, all the sutures being thus introduced before cutting away the redundant mucous membrane held by a tenaculum in the hands of an assistant This is to prevent the possibility of failing to incorporate the mucous membrane of the urethra in the sutures and so fail to secure a perfect result, inasmuch as it is the mucous membrane which, on account of its diseased condition, is giving the most trouble This is also the operation performed for prolapse of the mucous membrane, its redundancy being pulled through the button hole opening, back from the meatus, and there fastened The redundancy is then cut away, instead of cauterizing it, as in the past

The first case is that of a lady 32 years of age, the mother of four children The last labor was very brief, as the woman was delivered with forceps in the hands of a medical man, who had another engagement and could not be delayed This was four years ago The woman, when she came into my hands, was suffering from a double laceration of the cervix, which was torn back to the vaginal vault, with laceration of the perineum back to the sphyncter, and with a urethrocele that would have held two drachms of urine There was also quite a protrusion of the mucous membrane of the urethra, what Emmet calls "hæmorrhoids of the urethra," from constant straining to pass urine This woman had suffered constant tenesmus or bearing down pains ever since her confinement, with inability at times to go more than half an hour without passing urine, at other times she was compelled to micturate every few moments, the urine passing with the greatest difficulty This was making great inroads upon her health She had consulted quite a number of physicians and was treated, from what I can understand, for "cystitis" and "ulceration of the womb" This, I believe, was the diagnosis of her trouble by the gentleman who had rendered her such efficient service at her delivery The patient was operated on after the method of Dr Emmet An opening one and one-fourth inches in length on the vaginal surface and three-fourths of an inch in the urethral wall was made and the superfluous mucous membrane, both from the urethrocele and from the mouth of the urethra, drawn through the vaginal aperture, and the sutures put in before cutting away the redundancy of tissue Seven sutures were applied, and a perfect result was obtained in one week When the sutures were removed they were all found in a space not larger than the end of my thumb, in consequence of the contraction of the tissues The woman passed her water ten hours after the operation, and continued to do so afterward without pain or discomfort At the present time, three months after the operation, she says she is better than she has been at any other time since her last labor I would also state that the perineum and cervix were repaired at the same time Silk-worm gut sutures were used in this case

The second case is one of great interest from a medico-legal point of view, as the cavity of the urethrocele was lined with a pus secreting membrane The patient, although under my care, was not examined until after the urethrocele became very troublesome I then learned that difficulty from this source, gradually growing worse had been experienced for four years These facts were not ascertained until the husband had repeatedly presented himself for treatment of a mild urethritis which always developed after sexual intercourse His condition had been attributed to other than legitimate causes After a considerable number of attacks, he began to inquire the cause of his affliction Having been asked the question as to "foreign relations," he stoutly denied any such cause, though he admitted that he had suffered from gonorrhœa early in life, but had been completely cured long before the time of his marriage, some fifteen years ago He was then asked to have his wife present herself for examination at my office I found her suffering from laceration of the cervix and a urethrocele The urethrocele was exceedingly tender to pressure and had the feel of a fibrous growth, no fluctuation could be detected upon light handling in examination A pus cavity was suspected, from the painful character of the tumor and the husband's condition Repeated attacks of urethritis following sexual intercourse indicated an unusually irritating discharge from some source, and as the mucous surface of the vagina and cervix was in a healthy condition, and the discharges mild and unirritating, there could be but one rational explanation of the husband's condition, viz a suppurating sacculated condition of the urethrocele, with periodical discharges of pus Examination under ether fully confirmed the suspected pathological condition The urethrocele was thickened, corrugated, and filled with purulent ammoniacal urine The patient was placed in Sims's position, and the operation was performed as detailed in the other case, except that the pus-secreting membrane was carefully removed with the scissors, and the edges of the healthy mucous membrane were picked up with a tenaculum and the sutures of silk-worm gut introduced as in the case before cited A perfect result was obtained, removing all irritation of body and mind

Dr Joseph Price reported for Dr Barton Hirst, a case of

VULVO-RECTAL FISTULA FROM VIOLENCE DURING FIRST COITION

The patient, a young woman of 22 years, presented herself at the gynecological clinic of the Philadelphia Dispensary, with the following history Previous to her marriage, which took place eighteen months ago, she had been a perfectly healthy woman From the first attempt at sexual intercourse with her husband, which caused her to suffer such acute pain that she almost fainted, she dates all her trouble The sexual act was also followed by severe hæmorrhage, which persisted for a month, the passage of fæces and flatus *per vulvam* was at once noticed Every repetition of the sexual act for the next two or three weeks was followed by renewed bleeding, and even at the present time she suffers severely during intercourse The passage of the fæcal matter through the vulva gradually increased in degree until the rectum was evacuated entirely through the vulva There has been entire inability to retain flatus and fæces Examination The finger on entering the vulva passes at once into the rectum through a patulous opening of sufficient size to admit two fingers Inspection shows a perfectly intact crescentic hymen of moderate thickness and rigidity, having a small anterior opening Immediately in front of its posterior attachment is an irregular transverse tear, an inch and a half in its longest diameter, with thickened and everted edges, extending backwards and upwards for about one and one half inches, exposing to view the mucous membrane of the bowel The vagina is small and has evidently never been entered The operation proposed by Dr Joseph Price, and done by him March 16, 1886, consisted in freshening the edges of the tear, partially loosening the hymen from its attachment and using it as a flap to supply the deficiency Spotted silk worm gut sutures were used, and the closure, after the operation, was complete and resulted in perfect union This form of injury to the vulva is very rare, for although sixteen cases[1] of rupture of the vagina have been reported during late years as occurring during coition, only one of them, recorded by Blumenthal and operated on by Sir Spencer Wells at the Samaritan Hospital, in 1860, bears any resemblance to the present case, which, from the careful analysis given it by Dr Harris, is without doubt one of vulva-rectal fistula This form of fistula is much less common than the recto-vaginal The case here reported is of especial interest from the fact that the traumatism undoubtedly occurred during first coition, from the virginal condition of the hymen and from the long time during which sexual relations were maintained under circumstances which must have been disagreeable to both husband and wife There was no sign or suspicion of specific taint in either man or wife

---

[1] Paul F Mundé two cases Boston Med and Surg Jour 1885
Treiss, two cases Centralbl f Gynækologie 1885
Chadwick, one case Boston Med and Surg Journal
Colles, one case London Med Times and Gazette

Dr R P Harris remarked that he had seen and examined the patient, and was struck with her emaciation He inquired of her sister if she had not lost a great deal of flesh since her marriage This brought out three photographs, all of which represented a short woman of full habit, one of them having been taken two months before her marriage The sister stated that the patient had no control over her evacuations from the rectum, and that she was being constantly soiled by their escape But for the fact that the husband had been deprived of his prepuce in infancy, thereby rendering the penis callous by the exposure of the glans to the air, it is hardly possible that he could have forced the organ through the flesh as he did, without so much personal suffering as to compel him to desist Possibly also the tissues penetrated may have been less resisting than normal As the arm of a fœtus has been known to perforate the rectum and protrude at the anus during labor, without laceration of the perineum, there must be in some women a much less than usual strength in the rectal wall In considering the emaciation of this woman during the eighteen months of her married life, the question naturally arises, was this condition due to the want of rectal alimentation, to the constant loss of fæcal matter, or to the depressing effects of her condition, weakening her appetite and rendering her life miserable? The opening through the fossa navicularis into the rectum corresponded exactly with some of the cases of congenital malformation which Dr Harris had met with, and particularly with one in a large stout primapara In her, however, there was a slight anal sphyncter, and except when affected with diarrhœa she had control over her evacuations The only case upon record which corresponds to this was operated upon by Sir Spencer Wells, in December, 1859, at the Samaritan Hospital

Dr Price remarked that eighteen gut sutures were introduced in closing the wound

Dr Charles Meigs Wilson exhibited a

FIBROID POLYPUS OF THE UTERUS

This specimen was removed three weeks ago from the uterus of a patient with the following history For the past three years she had been flooding almost constantly Her flow had increased regularly at her catamenial periods, and at no time had it entirely ceased See had suffered all that time agonizing pain, greatly increased during the menstrual period The continued loss of blood had reduced her weight one fourth, and the continued anæmia of her nerve centres had produced characteristic effects During all this time she had had given her all the agents of the pharmacopœia vaunted for their efficacy in controlling uterine hæmorrhage But the cavity of the uterus had never been explored, save in a desultory way with a sound When first seen she was extremely anæmic, emaciated, troubled with insomnia, and had a very irritable stomach The uterus was dilated with the Ellwood Wilson curved dilator The growth, then readily seen, was grasped with a volsellum and dragged as far as possible from the uterus, a curved crescentic shaped, probe-pointed bistoury was then made to sweep over the surface of the growth until it came in contact with the sessile attachment of the tumor, which was severed with a sawing movement of the knife Prior to the operation large doses of the fluid extract of ergot were given to the patient for forty eight hours, in order to insure powerful contraction of the uterus after the tumor was removed Immediately after the ablation of the growth, the cavity of the uterus was smeared with a solution of one part of Tait's iodine and two parts of pure carbolic acid During the operation the patient lost half an ounce of blood The removal of the tumor would undoubtedly been accompanied by excessive hæmorrhage had not the precaution have been taken to secure prompt uterine contraction by the previous administration of ergot The patient made a happy recovery, has lost no blood at all since the operation, has gained in weight and improved in appetite The case carries with it its own lessons All the fruitless medication and the long period of suffering and distress might have been avoided had her medical attendants, at the beginning, dilated and explored the uterine cavity, removing the cause of the hæmorrhage instead of temporizing and making use of methods which at best, in cases of continued hæmorrhage from the cavity of the uterus, are of a prophylactic nature The polypus when fresh was four inches in length, two and a quarter in breadth, and one and three-quarters in thickness

Dr Goodell thought it was an error to expect hæmorrhage after the removal of uterine fibroids Velpeau had removed a very large number of these tumors, and his method had been to cut them away by means of a knife, and yet he had hæmorrhage in two cases only Dr Goodell has removed very many of these tumors, and has employed every method, he has never had any trouble from hæmorrhage In Constantinople, while young in experience, and in consultation with another very young man, he saw a case in which auto-enucleation had commenced The tumor was too large for removal by means of the écraseur, as the vagina was so filled up that the wire could not be got up to the base of the tumor They concluded to cut off all they could

---

Schrœder one case Gynecology last edition
Blumenthal one case, London Med Times and Gazette 1860
Thompson one case Medical News 1885
Ross one case Canadian Medical and Surgical Journal
Massalitinow one case, Centralbl f Gynækologie.
Kleinwachter one case Wien Med Presse 1885
Cayley two cases Indian Med Gazette 1872
Denmann one case Lect in Allgemein Hospital Vienna

get at, and then gave ergot The next day another large slice was removed, and at the end of a week they succeeded in dividing the false pedicle and all was safely removed, without any hæmorrhage whatever Since then he has ceased to fear hæmorrhage, and thinks a danger is incurred by the use of ergot in causing contraction of the cervix uteri and incarcerating the tumor He removes many submucous tumors by dilating the cervix with his dilator, passing in the polypus forceps and accomplishing the diagnosis and removal at the same time, the latter being effected by twisting When he has recourse to the écraseur, he now uses the finest piano wire, which is more efficient than the heavier and less liable to break He first pushes the écraseur up to the fundus uteri with the wire bent over, and then coaxes the wire up, and in this way has little trouble in getting it around the base of the tumor Before tightening the wire he removes traction from the tumor and pushes up with the écraseur, so as to correct any inversion of the uterus that may have been caused in pulling the tumor down Now when the wire is tightened the tumor will be divided without fear of injury to the uterine tissue

Dr Howard A Kelly said the choice of method in these cases should depend largely upon the individual peculiarity Chassaignac's ecraseur had rendered him good service in those polypi having broader bases of attachment, but when this is at the fundus and a large tumor chokes the vagina or cervix uteri, the difficulty of satisfactorily fixing the loop is very great The porte-chaine added to the écraseur by Marion Sims is serviceable, but nothing will compare with the flexible, easily adjusted wire of a Braxton-Hicks écraseur Where the pedicle was neither large nor dense he has had great satisfaction in the use of phosphor bronze wire, which is so much more easily manipulated than piano wire Scanzoni's plan of cutting the tumor off when the pedicle is long is excellent and safe It goes without saying now that rigid antiseptic precautions should accompany any such operation

Dr Parish did not think there was much difference in the method of different operators He never gives ergot before any intra-uterine operation in which he wishes relaxation of the cervix With the ecraseur he uses wire and introduces it in the manner described by Dr Goodell, and uses jeweler's pliers to manipulate the wire, pushing it up and around the tumor He has no fears of sepsis if all the tumor be removed, but he takes the precaution of injecting a very hot solution of mercuric chloride after operating

Dr Montgomery has had free hæmorrhage after removing uterine fibroids by means of the écraseur This hæmorrhage was so free in one case that hot water injections would not control it, and Mensel solution was applied with success He, however, would not give ergot beforehand for fear of causing rigidity of the cervical tissues In one instance large piano wire snapped several times on account of the firm, dense character of the pedicle, and he had recourse to cutting away portions of the tumor, the remainder being thrown off by natural action The tumor had been adherent to the posterior wall of the uterus and had been partially enucleated before operation The patient was very weak, and septicæmia and death resulted In a case in which he used the wire écraseur a portion of the tumor was left, it was thrown off by auto enucleation, and was very offensive The patient did not suffer from sepsis, but having wounded his own finger with a tenaculum in its removal, he was very sick in consequence He thinks the spoon curette or saw would be the best instrument in the enucleation of large fibroids

Dr Goodell carefully cleanses out the vagina before and after operation He formerly used carbolic acid, but now prefers the mercuric chloride He prefers the high note piano wire, which has never broken in his hands, as it cuts as well as crushes

Dr W S Stewart is glad to hear about the greater strength of the small piano wire, as he has been using triple twisted wire and has been much troubled by its breaking, so that he has given it up for the chain He had mentioned his trouble to Gemrig, who recommended iron wire, which has been answering a very good purpose He much prefers Labarraque's solution of chlorinated soda as an antiseptic and disinfectant

Dr Goodell remarked that the finer piano wire was not stronger, but was more efficient, as it cuts more easily through the tissues Twisted wire will break more easily than single because the strain on the different strands is unequal

Dr Baer agrees with Drs Goodell and Parish as to the unadvisability of using ergot before operating He has given up the écraseur on account of the difficulty attending the breaking of the wire He is now in the habit of pulling down the tumor and removing it piecemeal He uses vinegar if a styptic is needed

Dr Wilson has seen one death follow the use of the écraseur, and has had trouble in adjusting the wire, the liability of removing uterine tissue by the wire is a great danger He thinks it better to drag the tumor down and cut it off in pieces He feared hæmorrhage in this patient on account of the fearful loss of blood which she had already sustained He considered prophylaxis the safer course

VAGINAL HYSTERECTOMY

Dr Wm Goodell exhibited a womb which he had removed per vaginam The woman had been brought to him by Dr F R Gerhard, of Douglassville, Pa She was 65 years old and had given birth to twelve children She had a hypertrophic elongation of the womb, the sound giving a measurement of minus five inches Her cervix was outside of her body, and it was very greatly enlarged in every direction by a carcinoma On March 10, before the students of the University of Pennsylvania, he amputated the cervix after applying an elastic ligature, but finding that Douglas's pouch had been opened, he concluded to perform the radical operation The womb was accordingly retroverted, its attachments to the bladder severed, the broad ligaments tied *en masse*, each with two strong ligatures, and the womb removed The large gaping wound was closed by seven wire sutures, leaving only a small opening through which the ligatures passed and acted as drainage tubes

Sublimated cotton was lightly packed into the vagina This was removed twice a day and the womb syringed out with a 1–2000 solution of mercuric chloride On the next day the temperature rose to 100 2°, but it never after that day reached 100°. The sutures were removed on the fourteenth day, and with some difficulty, as they were now high up in the apex of a cone-shaped vagina She was able to go home on the twenty third day after the operation

Dr H A Kelly remarked that he wished in this connection to emphasize a point of vital importance in every operation where there is either artificial or pathological descent of the cervix proper The slightest traction, elongating the cervix, draws the vaginal vault down over the displaced supra-vaginal portion, like the finger of a glove, and unless especial care is directed to this point, there is imminent danger of scalping the vagina in any operation then performed on the cervix In lacerated cervix, particularly where Dawson's scissors are used (and great downward traction is fashionable), and the bases of the broad ligaments are opened in this way, and in amputation intended to be limited to the infravaginal cervix, as in this case of Dr Goodell's, either the scalping process lays bare a broad tract of areolar tissue in the vault around the cervix, or, worst of all, Douglas's pouch is laid open It is unnecessary to enlarge upon the greatly increased dangers of septic infection He would ask Dr Goodell in relation to the after treatment of this case In the latest contribution to this subject by Dr Brennecke, of Magdeburg, in the *Zeitschrift fur Geburtshulfr und Gynecologie*, he clearly shows that those cases ran a most favorable course in which the iodoform tampon was not removed for six or seven days, and that syringing after operation with a view of carrying off foul dis charges is a pernicious practice, as it separates the peritoneal surfaces which have just formed delicate adhesions, and breaks up the early steps of repair without the possibility of accomplishing its purpose A point well worthy attention is Brennecke's method of dealing with the upper part of the stump of the broad ligaments, which are caught in stout ligatures Experience has shown that the distal end is very apt to slough, and to secure an indemnity from the dangers of sloughing, Brennecke ties the ligatures of opposite sides across and everts the two stumps thus fastened together, into the vagina, where they cannot do harm, and help form a plug for the wound

Dr Montgomery questions the propriety of total extirpation of the uterus How long is the patient likely to live after this operation? If partial removal gives equal relief from the disease for which the operation is performed and an equal or greater chance for a prolongation of life, it is to be preferred as the least dangerous Hoffmeier in a summary of German gynecological work opposes total extirpation if it can be avoided He reports 145 cases of partial and thirty nine of total removal of the uterus Ten of each series were fatal In six of the partial cases the result was unknown Of the total removals six only were living at the end of two years and none at the end of three years, while of the partial six still lived at the end of the fifth year Following the plan suggested by Sims and Van de Warker in cases of malignant disease of the cervix, Dr Montgomery makes an incision into the uterus at the vaginal junction and dissects upward as closely as possible to the peritoneal surface while making traction on the cervix, thus, as it were, enucleates the uterus, leaving a very thin wall, he then stuffs this cavity with a mixture of equal quantities of zinc chloride and water on cotton tampons to cause a slough of any diseased tissue that may have been left behind If by chance the sloughing should perforate the peritoneum, the previous inflammatory exudation would save the peritoneal cavity from invasion

Dr H A Kelly does not wish the claim of an eminent American surgeon to priority in this matter to be forgotten The credit of originating the highest practicable one shaped amputation of the uterus, and establishing its great utility, its safety and relatively greater success is due to Dr Baker, of Boston, He uses no cautery and controls hæmorrhage perfectly by the effect of the strong downward traction upon the vessels

Dr Parish mentioned an earlier operation by Hirth, of San Antonio, Texas, who practiced the method described by Dr Montgomery, of enucleating the uterus from its peritoneal covering He divided the vaginal mucous membrane and gradually shelled or scooped out the uterine tissue The operation was accompanied by great hæmorrhage

Dr C M Wilson, thought such an operation very dangerous and liable to be followed by secondary hæmorrhage He has in two cases after Dr Baker's method, used a hot tamponade of the uterus and vagina after the operation Dr M McCormick, of London, packed the stump with bandage or gauze, filled with iodoform, and allowed it to remain undisturbed for nine days This was perfectly sweet when removed, and is a good and safe plan of after treatment

Dr Goodell said that the method of Brennecke's, of not washing, seemed to him to be undoubtedly a good one, and he would in future adopt it He once had an alarming hæmorrhage from the division of a large vessel after a hole had been accidently made in Douglas's cul de sac in the high amputation Consequently he could not pack the vagina for fear of forcing blood, etc , into the peritoneal cavity, and he had to control the bleeding by twisting a wire around it He generally uses Paquelin to control hæmorrhage in these cases, and has operated upon at least 200 with only four deaths Neither of the fatal cases were high operations One death was from secondary hæmorrhage, one from tetanus, one from a frank peritonitis and one from septicemia He thinks the high operation the most feasible one in the majority of cases in which the womb is movable and he has extirpated the womb but twice for carcinoma

Dr H A Kelly exhibited the sac of an

OVARIAN TUMOR THAT WEIGHED AT REMOVAL ONE HUNDRED POUNDS

Dr Goodell congratulated Dr Kelly upon his success in removing such a large tumor He, Dr Goodell, had on one occasion removed a tumor weighing 112 pounds from a woman, who after the operation weighed only 74 pounds As in Dr Kelly's patient the tumor reached the patient's knees and she could not lie down After the operation the large folds of the stretched skin were a great annoyance, but after some months it had entirely contracted The patient made a complete recovery

Dr M Price had been present at Dr Kelly's operation A large vein was torn and a stream of blood as large as his finger poured out The patient collapsed instantly and Dr Price thought her dead, but he was surprised and pleased at the effects of a hypodermatic injection of ʒj of sulphuric ether which restored the pulsation quickly

(*To be concluded*)

DOMESTIC CORRESPONDENCE

THE DANGERS OF KISSING

To the Editor of the Journal

Dear Sir —Apropos to the paper of Dr Samuel S Adams, in your issue of May 22, allow me to thank him for the paper and to report two cases of syphilis from kissing

About 1872 a young man presented himself at my office with a full blown chancre on his penis, and syphilitic sore mouth He was treated *secundam artem* and went his way Some weeks later I received a letter from him saying that his chancre was healed and that he was doing well, but that he was in further trouble—that a few days after consulting me he had kissed a young lady at an evening party in Altoona, and that she had syphilitic sore mouth as a result

Recently I was consulted by a young married woman She was a stout, robust person, of great natural physical strength She presented a squamous eruption, syphilitic sore mouth and condylomata I sent for her husband He was perfectly healthy, vowed, and I believe truthfully, that he was and had been pure I told him the condition of his wife, and warned him against infection We then began an investigation of the origin of the wife's infection And it may be well to state here that I had not questioned her chastity I knew the woman The search was attended by success A brother had long been absent, returned home with syphilis, kissed his sister and infected her He remained at home for some time, and during the time was treated for his malady by a physician within three minutes' walk of my office

If these cases will help the cause I will be rejoiced

R Stansbury Sutton

BOOK REVIEWS

The Lettsomian Lectures Delivered at the Medical Society of London, 1872, on The Pathology and Treatment of Some Diseases of the Liver By S O Habershon, M D Lond, F R C P, Late Senior Physician to, and Lecturer on Medicine at, Guy's Hospital, etc Second Edition 8vo, pp viii, 111 Philadelphia P Blakiston, Son & Co Chicago W T Keener

It is to be regretted that Dr Habershon should have sent out a second edition of these lectures without making radical changes in the form and subject-matter It is equally to be regretted that he should have chosen such a large subject for three lectures, and so small a book It is not to be compared in any way with his Lumleian Lectures on the "Pneumogastric Nerve," delivered in 1876 What there is of therapeutics in the book cannot be highly commended, the pathology, which one would expect from the title, amounts to almost nothing, and the physiology is not up to date There is no index to the book

Lectures on the Diseases of the Nose and Throat Delivered during the Spring Session of Jefferson Medical College By Charles E Sajous, M D, Lecturer on Rhinology and Laryngology in the Spring Course of Jefferson Medical College, One of the physicians in charge of the Throat Department, Jefferson College Hospital Fellow of the American Laryngological Association, Corresponding Member of the Royal Society of Belgium, and of the Medical Society of Warsaw (Poland), etc, etc Illustrated with One Hundred Chromo Lithographs, from Oil Paintings by the Author, and ninety-three Engravings on Wood 8vo, pp xii, 439 Philadelphia F A Davis, Att'y, Publisher, 1885

Medical literature of recent date is so profuse, so verbose, and so frequently is one book but a paraphrase of another, that we are gratified and much refreshed by the originality of Sajous' Lectures on the Diseases of the Nose and Throat Like a certain work of which it was facetiously written—"The good things are not new and the new things are not good" —*this book* "contains both good things and new things, but unlike the first mentioned, the new things *are* good and many of the good things are new Ninety seven of the one hundred chromo lithographs are original, nearly all of the instruments and apparatus depicted are the author's own or the author's modification, and his modifications are not of the useless variety, but they invariably impress one as precisely the improvement needed to remedy a genuine defect Indeed, we cannot but admire the keenness of conception and wealth of device displayed in the many ingenious and withal simple inventions necessary to meet the indications

As the difference between the normal and pathological state is often appreciable only in the change of color, this value for illustration of the numerous chromo lithographs is at once apparent In preparing them Dr Sajous, again uniquely original, has performed the part of artist as well as of anatomist, and so successfully that we turn from one plate to another with ever increasing delight

Prescriptions which comprise a number of remedies, have specified in smaller type, opposite each ingredient, the particular purpose for which that agent is employed Knowledge of an exact character, of which we are much in need in connection with local applications to mucous surfaces, is thus imparted

Only the best therapeutic measures are recommended, faulty ones are denounced, and others are omitted Useless discussions and doubtful theories are excluded and their space devoted to details of a practical nature Instance, the section on hypertrophic rhinitis or hypertrophic nasal catarrh, wherein the various operative procedures and the requisite apparatus for the effective treatment of suitable cases by the galvano cautery, are described with exemplary minuteness and in a singularly lucid and interesting manner

The phraseology, throughout, is plain and concise, the paper and print are good, and typographical errors are few in number

We regret that it was found expedient to publish the work only by subscription, and hope that another edition will soon be issued to the trade so that it may be within the reach of all

NECROLOGY

WILLIAM OWEN BALDWIN M D

William Owen Baldwin, M D , of Montgomery, Alabama, died at his residence in that city on Sunday, May 30, 1886 He was born in Montgomery County on August 9, 1818 Dr Baldwin was the son of William and Celia (Fitzpatrick) Baldwin His mother was the sister of U S Senator Benjamin Fitzpatrick, formerly Governor of the State of Alabama After receiving a good collegiate education he studied medicine in the office of Dr McLeod, of Montgomery He attended medical lectures at the Transylvania University, Lexington, Ky , and received his degree of M D in 1837 He began practice in Montgomery and was associated with Dr Wm M Boling, which association continued until 1848 In the meantime he visited Europe, and spent a year there in study in the leading medical schools and hospitals

He was ambitious and well prepared in his profession, and justly took high rank among the foremost practitioners in his section of the country, and he was an interested student up to the time of his death In debate he was a ready and eloquent speaker, and was an elegant and fluent writer The medical journals contained numerous and valuable articles from his pen, from the time of his graduation to within the past year His graceful tribute to the memory of his old and esteemed friend, Dr J Marion Sims, will be remembered by most physicians of the present day But he also wrote well on many of the more important diseases and questions of interest to the profession of the South He was an original member of the Medical Association of Alabama, has served as its President, and was a valued contributor to its *Transactions* He was also an active member of the Medical and Surgical Society of Montgomery County, and was honored with its highest offices He was a member of the American Medical Association in 1868 and its President in 1869, presiding at the meeting in New Orleans in that year His address as President on that occasion is replete with Christian and patriotic sentiments, so beautifully expressed and well timed as to remain shining landmarks in the history of the Association The committee charged with organizing the Ninth International Medical Congress, which is to assemble in Washington City in 1887, had chosen Dr Baldwin as one of its Vice-Presidents, his success in the profession and his high character as a man fully warranting the selection In social life he was by nature a leader, his culture and refined feelings of a high order gave him real, not accidental prominence Well versed on almost every topic, with a deferential manner and an agreeable voice, he was the chosen and welcome oracle of every circle

Dr Baldwin had been in poor health for several years, but his friends at a distance hoped his life would be spared for further usefulness He leaves a wife and several sons and daughters We hope to give at some time a more complete sketch of the life of Dr Baldwin

MISCELLANEOUS

The New Hampshire State Medical Society will hold its sixty ninth annual meeting in Concord, on June 15 and 16

Reduced railway rates are as follows The Concord will sell tickets to members and delegates to Concord and return at two cents a mile each way, from Manchester, Nashua Junction, Portsmouth Newmarket Junction, Epping, Raymond, Candia, Salem, Derry, Londonderry, Lawrence, Hooksett, Suncook, Pittsfield and Goffstown The Northern and White Mountains Divisions of the Boston & Lowell will sell tickets to Concord and return at two cents *per mile*, each way, from White River Junction, Lebanon, Enfield, Canaan, Grafton, Potter Place, East Andover, Bristol, Franklin, Boscawen, Penacook, Claremont, Newport, Bradford, Warner, Peterborough, Hancock Junction, Antrim, Hillsborough, Henniker, Contoocook, Groveton Junction, Lancaster, Whitefield, Fabyan's, Littleton Lisbon, Woodsville, Haverhill, Warren, Rumney, Wentworth, Plymouth, Campton, Ashland, Meredith, Weirs, Lake Village, Laconia and Tilton The Boston & Lowell R R will sell tickets from Keen and Marlboro' to *Hancock Junction and return*, and from Wilton, Milford and Amherst to *Concord and return*, for two cents per mile, each way

To secure Reduced Rates, tickets must be bought at these Stations

This arrangement is for June 14 to 17 inclusive Members can take advantage of it to attend the meeting of the Council, Monday evening, and also to remain and attend the meeting of the Alumni of Dartmouth College, which will be held in Concord City, June 17

The Chicago Policlinic —This school, which has now been fully organized, will begin its courses of instruction on July 6 The systematic and regular courses of instruction will be held in the Hospital and weighed only 74 pounds As in Dr Kelly's patient the tumor reached the patient's knees and she could not lie down After the operation the large folds of the stretched skin were a great annoyance, but after some months it had entirely contracted The patient made a complete recovery

Dr M Price had been present at Dr Kelly's operation A large vein was torn and a stream of blood as large as his finger poured out The patient collapsed instantly and Dr Price thought her dead, but he was surprised and pleased at the effects of a hypodermatic injection of ʒj of sulphuric ether which restored the pulsation quickly

(*To be concluded*)

DOMESTIC CORRESPONDENCE

THE DANGERS OF KISSING

To the Editor of the Journal

Dear Sir —Apropos to the paper of Dr Samuel S Adams, in your issue of May 22, allow me to thank him for the paper and to report two cases of syphilis from kissing

About 1872 a young man presented himself at my office with a full blown chancre on his penis, and syphilitic sore mouth He was treated *secundam artem* and went his way Some weeks later I received a letter from him saying that his chancre was healed and that he was doing well, but that he was in further trouble—that a few days after consulting me he had kissed a young lady at an evening party in Altoona, and that she had syphilitic sore mouth as a result

Recently I was consulted by a young married woman She was a stout, robust person, of great natural physical strength She presented a squamous eruption, syphilitic sore mouth and condylomata I sent for her husband He was perfectly healthy, vowed, and I believe truthfully, that he was and had been pure I told him the condition of his wife, and warned him against infection We then began an investigation of the origin of the wife's infection And it may be well to state here that I had not questioned her chastity I knew the woman The search was attended by success A brother had long been absent, returned home with syphilis, kissed his sister and infected her He remained at home for some time, and during the time was treated for his malady by a physician within three minutes' walk of my office

If these cases will help the cause I will be rejoiced

R Stansbury Sutton

BOOK REVIEWS

The Lettsomian Lectures Delivered at the Medical Society of London, 1872, on The Pathology and Treatment of Some Diseases of the Liver By S O Habershon, M D Lond, F R C P, Late Senior Physician to, and Lecturer on Medicine at, Guy's Hospital, etc Second Edition 8vo, pp viii, 111 Philadelphia P Blakiston, Son & Co Chicago W T Keener

It is to be regretted that Dr Habershon should have sent out a second edition of these lectures without making radical changes in the form and subject-matter It is equally to be regretted that he should have chosen such a large subject for three lectures, and so small a book It is not to be compared in any way with his Lumleian Lectures on the "Pneumogastric Nerve," delivered in 1876 What there is of therapeutics in the book cannot be highly commended, the pathology, which one would expect from the title, amounts to almost nothing, and the physiology is not up to date There is no index to the book

Lectures on the Diseases of the Nose and Throat Delivered during the Spring Session of Jefferson Medical College By Charles E Sajous, M D, Lecturer on Rhinology and Laryngology in the Spring Course of Jefferson Medical College, One of the physicians in charge of the Throat Department, Jefferson College Hospital Fellow of the American Laryngological Association, Corresponding Member of the Royal Society of Belgium, and of the Medical Society of Warsaw (Poland), etc, etc Illustrated with One Hundred Chromo Lithographs, from Oil Paintings by the Author, and ninety-three Engravings on Wood 8vo, pp xii, 439 Philadelphia F A Davis, Att'y, Publisher, 1885

Medical literature of recent date is so profuse, so verbose, and so frequently is one book but a paraphrase of another, that we are gratified and much refreshed by the originality of Sajous' Lectures on the Diseases of the Nose and Throat Like a certain work of which it was facetiously written—"The good things are not new and the new things are not good" —*this book* "contains both good things and new things, but unlike the first mentioned, the new things *are* good and many of the good things are new Ninety seven of the one hundred chromo lithographs are original, nearly all of the instruments and apparatus depicted are the author's own or the author's *modification, and his modifications are* not of the useless variety, but they invariably impress one as precisely the improvement needed to remedy a genuine defect Indeed, we cannot but admire the keenness of conception and wealth of device displayed in the many ingenious and withal simple inventions necessary to meet the indications

As the difference between the normal and pathological state is often appreciable only in the change of color, this value for illustration of the numerous chromo lithographs is at once apparent In preparing them Dr Sajous, again uniquely original, has performed the part of artist as well as of anatomist, and so successfully that we turn from one plate to another with ever increasing delight

Prescriptions which comprise a number of remedies, have specified in smaller type, opposite each ingredient, the particular purpose for which that agent is employed Knowledge of an exact character, of which we are much in need in connection with local applications to mucous surfaces, is thus imparted

Only the best therapeutic measures are recommended, faulty ones are denounced, and others are omitted Useless discussions and doubtful theories are excluded and their space devoted to details of a practical nature Instance, the section on hypertrophic rhinitis or hypertrophic nasal catarrh, wherein the various operative procedures and the requisite apparatus for the effective treatment of suitable cases by the galvano cautery, are described with exemplary minuteness and in a singularly lucid and interesting manner

The phraseology, throughout, is plain and concise, the paper and print are good, and typographical errors are few in number

We regret that it was found expedient to publish the work only by subscription, and hope that another edition will soon be issued to the trade so that it may be within the reach of all

NECROLOGY

WILLIAM OWEN BALDWIN M D

William Owen Baldwin, M D , of Montgomery, Alabama, died at his residence in that city on Sunday, May 30, 1886 He was born in Montgomery County on August 9, 1818 Dr Baldwin was the son of William and Celia (Fitzpatrick) Baldwin His mother was the sister of U S Senator Benjamin Fitzpatrick, formerly Governor of the State of Alabama After receiving a good collegiate education he studied medicine in the office of Dr McLeod, of Montgomery He attended medical lectures at the Transylvania University, Lexington, Ky , and received his degree of M D in 1837 He began practice in Montgomery and was associated with Dr Wm M Boling, which association continued until 1848 In the meantime he visited Europe, and spent a year there in study in the leading medical schools and hospitals

He was ambitious and well prepared in his profession, and justly took high rank among the foremost practitioners in his section of the country, and he was an interested student up to the time of his death In debate he was a ready and eloquent speaker, and was an elegant and fluent writer The medical journals contained numerous and valuable articles from his pen, from the time of his graduation to within the past year His graceful tribute to the memory of his old and esteemed friend, Dr J Marion Sims, will be remembered by most physicians of the present day But he also wrote well on many of the more important diseases and questions of interest to the profession of the South He was an original member of the Medical Association of Alabama, has served as its President, and was a valued contributor to its *Transactions* He was also an active member of the Medical and Surgical Society of Montgomery County, and was honored with its highest offices He was a member of the American Medical Association in 1868 and its President in 1869, presiding at the meeting in New Orleans in that year His address as President on that occasion is replete with Christian and patriotic sentiments, so beautifully expressed and well timed as to remain shining landmarks in the history of the Association The committee charged with organizing the Ninth International Medical Congress, which is to assemble in Washington City in 1887, had chosen Dr Baldwin as one of its Vice-Presidents, his success in the profession and his high character as a man fully warranting the selection In social life he was by nature a leader, his culture and refined feelings of a high order gave him real, not accidental prominence Well versed on almost every topic, with a deferential manner and an agreeable voice, he was the chosen and welcome oracle of every circle

Dr Baldwin had been in poor health for several years, but his friends at a distance hoped his life would be spared for further usefulness He leaves a wife and several sons and daughters We hope to give at some time a more complete sketch of the life of Dr Baldwin

MISCELLANEOUS

The New Hampshire State Medical Society will hold its sixty ninth annual meeting in Concord, on June 15 and 16

Reduced railway rates are as follows The Concord will sell tickets to members and delegates to Concord and return at two cents a mile, each way, from Manchester, Nashua Junction, Portsmouth Newmarket Junction, Epping, Raymond, Candia, Salem, Derry, Londonderry, Lawrence, Hooksett, Suncook, Pittsfield and Goffstown The Northern and White Mountains Divisions of the Boston & Lowell will sell tickets to Concord and return at two cents per mile, each way, from White River Junction, Lebanon, Enfield, Canaan, Grafton, Potter Place, East Andover, Bristol, Franklin, Boscawen, Penacook, Claremont, Newport, Bradford, Warner, Peterborough, Hancock Junction, Antrim, Hillsborough, Henniker, Contoocook, Groveton Junction, Lancaster, Whitefield, Fabyan's, Littleton Lisbon, Woodsville, Haverhill, Warren, Rumney, Wentworth, Plymouth, Campton, Ashland, Meredith, Weirs, Lake Village, Laconia and Tilton The Boston & Lowell R R will sell tickets from Keen and Marlboro' to *Hancock Junction and return*, and from Wilton, Milford and Amherst to *Concord and return*, for two cents per mile, each way

To secure Reduced Rates, tickets must be bought at these Stations

This arrangement is for June 14 to 17 inclusive Members can take advantage of it to attend the meeting of the Council, Monday evening, and also to remain and attend the meeting of the Alumni of Dartmouth College, which will be held in Concord City, June 17

The Chicago Policlinic —This school, which has now been fully organized, will begin its courses of instruction on July 6 The systematic and regular courses of instruction will be held in the Hospital and

Dispensary building, at the corner of Chicago and La Salle avenues The courses will be of six weeks' duration Dr Wm T Belfield, 612 Opera House Block, is the Secretary

The Michigan State Medical Society will hold its twenty first annual Session in Jackson, beginning on Wednesday, June 9

New York State Medical Association, Third District Branch will hold its second annual meeting in the Court House in Binghamton on June 17 The programme includes nineteen papers

Prof Hans Gierke —The University of Breslau has lost one of the most popular of its medical staff in Dr Gierke, who died on the 8th inst in the Maison de Santé at Schoneberg, near Berlin Hans Paul Bernhard Gierke, brother of the well known Professor of Law in the University of Heidelberg, was born on the 19th of August, 1847, at Stettin After completing his academic studies he came before the public with his first scientific work, "Ueber das Athmungscentrum" ("on the Respiratory Centre") At the instance of Dr Kolliker, he went in 1876 to Tokio to fill the Chair of Anatomy in the Imperial University of the Japanese capital By that time, however, the seeds of a lingering malady had declared themselves, and in 1881 he returned home to assist Professor Heidenhain in the Physiological Institute at Breslau, where he was appointed in the following year Extraordinary Professor Advancing illness compelled him to seek a more southern climate, but the change brought him no benefit Before his death his valuable collection of Japanese objects was exhibited in the Industrial Art Museum of Berlin, while his rich assortment of Japanese pictures was purchased by the State for the Ethnographic Museum of the same city —*Lancet*, May 22, 1886

Vaccination in Japan —The Japanese do not appear to have lost any of their faith in the efficacy of vaccination for the small pox They have just enacted a very stringent law on the subject, for besides ordinary vaccination in the first year of infancy, it provides for at least two subsequent re-vaccinations at intervals of from five to seven years, so that by the time a child has reached its fifteenth year it will have been vaccinated three times During epidemics of small pox, local authorities also have power, when they deem it necessary, to order the vaccination of all the inhabitants of their districts, irrespective of the vaccinations required by the law —*Sanitary Record*, May 15, 1886

A Bill to Prevent the Sale of Impure Ice has been reported by the Committee on Public Health in the Massachusetts House of Representatives It provides that upon complaint in writing the State Board of Health may, if they think the complaint is well founded, order the sale of the ice stopped

---

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM MAY 22, 1886 TO MAY 28 1886

Lieut Col Andrew K Smith, Surgeon, Major Alfred A Woodhull, Surgeon, and Capt Jas P Kimball, Asst Surgeon, detailed as board to assemble at U S Military Academy, West Point, N Y, on June 1, 1886, to examine into the physical qualifications of members of the graduating class and the candidates for admission to the Academy (S O 119, May 21, 1886)

Major Albert Hartsuff, Surgeon, detailed as member of a board appointed to meet at the U S Military Academy, West Point, N Y, on June 1 and August 25, 1886, to examine into the physical qualifications of members of the graduating class and the candidates for admission to the Academy (S O 121, A G O, May 25, 1886)

Par 7, S O 120, A G O, May 24, revokes so much of par 12, S O 119, A G O, May 21, as details Surgeon Alfred A Woodhull as member of medical examining board to meet at West Point, N Y, on June 1, 1886

Capt C K Winne, Asst Surgeon granted leave of absence for twenty days, on surgeon's certificate of disability (S O 54, Dept Cal, May 17, 1886)

Capt Henry S Kilbourne, Asst Surgeon, assigned to duty at Vancouver Bks, Washington Ter (S O 80, Dept Columbia, May 15 1886)

Capt A H Appel, Asst Surgeon, ordered for duty at Ft Reno, Ind Ter (S O 52, Dept Mo, May 24, 1886)

Capt R B Benham, Asst Surgeon, ordered for temporary duty at Ft Omaha, Neb (S O 56, Dept Platte, May 24, 1886)

First Lieut R W Johnson, Asst Surgeon, ordered for duty at Ft Adams, R I (S O 45, Div Atlantic, May 25, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING MAY 29 1886

Dickson, S H P A Surgeon, detached from the Naval Academy and to the "Constellation"

Simon, W J Surgeon, detached from the Naval Academy and to the "Constellation"

Kidder, B H, Surgeon, detached from the "Powhatan" and to the "Tennessee"

Rhoades, A C, Surgeon, detached from the "Tennessee," proceed home and wait orders

Cordeiro, F J B, Asst Surgeon, detached from the "Powhatan," proceed home and wait orders

Clark, J H, Surgeon, ordered for examination preliminary to promotion

Hugg, Joseph, Surgeon, detached from the "Minnesota" and granted sick leave

Beaumont, H N, Surgeon, ordered to the receiving ship "Minnesota"

Law, H L, Surgeon, detached from the "Wabash" and granted sick leave

Henry, Chas P, Asst Surgeon, ordered to the receiving ship "New Hampshire."

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED MAY 22 1886

Bailhache P H, Surgeon, detailed as chairman, Board for physical examination of candidates for appointment as cadets, Revenue Marine Service May 19, 1886

Wyman, Walter, Surgeon, granted leave of absence for thirty days May 14, 1886

Stoner, G W, Surgeon, detailed as recorder, Board for physical examination of candidates for appointment as cadets, Revenue Marine Service May 19, 1886

Banks, C E, P A Surgeon, leave of absence extended four days May 5, 1886

Bratton, W D, Asst Surgeon, detailed as medical officer, Revenue Str "Corwin," during cruise May 22, 1886

Perry, T B, Asst Surgeon, appointed an Asst Surgeon, May 21, 1886 Assigned to temporary duty at San Francisco, Cal May 22, 1886

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI Chicago, June 12, 1886 No 24

ADDRESS IN STATE MEDICINE

BY JOHN H RAUCH, M D,

OF ILLINOIS

CHAIRMAN OF THE SECTION OF STATE MEDICINE

Delivered at the Thirty Seventh Annual Session of the American Medical Association, in St Louis, on May 6, 1886

Article II, Section 4 of the By Laws of the Association prescribes that the "chairmen of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their several sections "

In attempting to discharge this duty it will be well, first, to define State Medicine and the branches of science which it includes I have been unable to find a definition sufficiently comprehensive to cover what is conceived to be properly embraced within the scope of State Medicine Dunglison defines it to be "the medical knowledge brought to bear on State objects, as on public hygiene and matters pertaining to medical jurisprudence " In the introduction to his Manual of Practical Hygiene, Parkes, in pointing out the limitations of his subject, says "In some cases the rules of hygiene could not be followed, however much the individual might desire to do so For example, pure air is a necessity for health, but an individual may have little control over the air which surrounds him, and which he must draw into his lungs He may be powerless to prevent other persons from contaminating his air and thereby striking at the very foundation of his health and happiness Here, as in so many other cases which demand regulation of the conduct of individuals towards each other, the State steps in for the protection of its citizens, and enacts rules which shall be binding upon all Hence arises what is now termed 'State Medicine'—a matter of the greatest importance "

But in illustrating this "matter of the greatest importance," Dr Parkes clearly confines State Medicine to the relation of the State to purely sanitary matters—the protection of the individual against being placed under unfavorable hygienic conditions by the action of others, as of workmen by an ignorant or careless employer, of tenants by landlords, of food consumers by adulteration, etc, etc

De Chaumont greatly widened this definition in the preliminary lecture of his course on State Medicine, delivered in 1875 "State Medicine," he says, "has been written about, talked about, and quarrelled about, but it has rarely been explicitly defined, and to many it conveys no very distinct idea It has been confounded with public health, and generally much misunderstood, the part being frequently taken for the whole, and the wider scope of its action but little apprehended It includes the questions of public health and hygiene, general, special and individual, but its own appropriate province is such general control as will determine the several specialties in the directions most fitted for the well-being of the community In fact, we may succinctly define State medicine to be, in quasi-legal phraseology, 'the office of the sanitarian promoted by the State,'" and he predicts both its perfection and its extinction when the sanitarian as differentiated from the community generally, and the State as a controlling and interfering influence, shall have ceased to be—the one because every member of a perfected community will be a sanitarian, and the other because in such an ideal community State interference will have become unnecessary

There is still the limitation of the term "medicine" to the sanitarian in this definition, a distinction between preventive medicine—the field of the sanitarian, and curative medicine—the field of the physician But I think it is coming to be recognized that such a distinction is artificial and unnecessary, and I agree with Richardson, who, in speaking of the preventive scheme of medicine, says of the so called science and art of preventive medicine "It is not a science, it is not an art, separated necessarily or properly from curative medicine On the contrary, the study of prevention and cure proceed well together, and he is the most perfect sanitarian, and he is the most accomplished and useful physician, who knows most both of the prevention of disease and of the nature and treatment of disease, he who knows, in fact, the before and the after of each striking phenomenon of disease that is presented for his observation "

In this evolution of a definition one or two more quotations may be admissible Addressing the Association at the Atlanta meeting in 1879, on "The Regulation of Medical Practice by State Boards of Health as Exemplified by the Execution of the Law in Illinois," Dr H A Johnson suggested, in his conclusion, "that it is the duty of the State to protect its citizens from the injuries they may sustain from the practice of incompetent physicians and surgeons, as well as from any other source of danger to public health" And in the summary prefacing the Sixth Annual (1883) Report of the Illinois State Board of Health, it is observed that "Boards of health are created and maintained for the conservation of the interests of health and life Ordinarily their functions are limited to dealing with sanitary questions, with the removal of the causes of preventable disease and premature death This Board, however, is also charged with the execution of the act to regulate the practice of medicine in the State, and thus the medical profession, one of the most important agencies which is concerned with the interests of health and life, is brought within the scope of sanitary legislation To improve the status of the individual practitioner, and to develop a well trained and thoroughly educated medical profession, must result in increasing the value of this force in sanitary science and public hygiene, a force which, in the nature of things, must always exist so long as there are physicians and patients, and the character and influence of which must always hold a direct relation to the tone, the attainments, and the competency of those by whom it is exerted"

The application of the term State Medicine is thus seen to have been successively extended from the agency of the State in matters of hygiene beyond the control of the individual, first to measures of preventive medicine in general, and thence to curative medicine in so far as it is the duty of the State to regulate medical practice State Medicine may therefore be now defined as the connection of the State with "*that branch of science which relates to the* PREVENTION, CURE *or* ALLEVIATION *of the diseases of the human body*"[1] It embraces not only all public sanitary measures, but also the practice of medicine in so far as this is regulated by the State Therefore, any report upon "the advances and discoveries of the past year" in the branches included in this Section may logically begin with the subject of the regulation of medical practice, which also and necessarily includes the subject of medical education

STATE REGULATION OF MEDICAL PRACTICE AND MEDICAL EDUCATION

Before proceeding to discuss the present status and recent progress in these matters, it may be well to set forth, briefly, the authority by which the State assumes to regulate the practice of medicine That authority is the inherent and plenary power which resides in the State to prohibit all things hurtful, and to promote all things helpful, to the comfort, welfare and safety of society Speaking specifically of the Illinois Medical Practice Act, ex Governor John M Hamilton has recently said "The object of the Medical Practice Act was primarily a police regulation Incidentally it was educational Primarily the purpose of the law was to rid the State of incompetent, ignorant and dangerous mountebanks and quacks, who were carrying on a fraudulent and nefarious business by all manner of deceit in a pretended practice of medicine among the people It was to protect the lives, the health, the morals and the property of the people of the State from the shameless depredations of swindlers and adventurers who, by all manner of false representations and deceptive promises, were taking advantage of the misfortunes of the people in sickness and ailments of all kinds, to still further injure their health, endanger their lives and rob them of their money

"Incidentally the law was designed to require a reasonable amount of education to fit one for the practice of medicine before he should be allowed to enter that profession, so directly and intimately connected with the lives, the health and the happiness of the people Both these purposes come clearly within the police powers of the State in affording such protection to its citizens"

An unbroken line of authorities, from Blackstone down to the most recent decisions of the various Supreme Courts, hold that the police powers of the State are plenary and inalienable, co extensive with the natural right of self-protection, that their exercise is demanded and justified by the "law of over ruling necessity," and that broadly, they are the foundation of all laws and regulations for the well-being or government of the people, and especially, of all laws, ordinances, rules and regulations for the preservation of the health or safety of the community Early in the history of the country laws, thus founded, were enacted for the regulation of the practice of medicine But the sparse population and the conditions which then obtained, as well as the fact that many of the enactments were so onerous and restrictive that they came to be regarded by the public as in the nature of class legislation, operating to make the profession a close guild or trades union, rendered their enforcement impracticable They were gradually repealed or fell into a state of "innocuous desuetude," until about 1830–1840 there were practically no restrictions, the profession became a "free for all," bogus diplomas were openly and unblushingly sold and displayed by their purchasers, as credentials of membership in a learned profession The country was overrun by hosts of ignorant, immoral and dangerous swindlers, self-styled "doctors," who preyed upon the unfortunate afflicted, "isms" and so called "schools" of medical practice multiplied, a mushroom crop of diploma-mills sprang up over the land, and as a natural result, the general standard of medical education and of requirements for graduation—except among the best class of medical colleges—fell lower and lower

A reaction from this condition began at about the close of the first century of our National existence, at which time, 1876, North Carolina had a well framed law, creating a State Board of Medical Examiners, passed in 1859 Kentucky had enacted a law in 1874, creating district examining Boards, but except in a few counties, this soon became a dead letter In In 1875 Nevada, and in 1876 California and Texas legislated upon the subject In 1877 Alabama established a State Board of Medical Examiners, and Illinois passed a Medical Practice Act the execution of which was devolved upon a State Board of Health created by a separate enactment Within the next two years only two other States took action—Kansas in 1879 (repealed in 1881) and New York in 1880 In 1881 nine States and one Territory enacted medical practice laws, viz.: Arizona, Arkansas, Colorado, Connecticut, Florida, Georgia, Nebraska, New Jersey, Pennsylvania and Wisconsin. In 1882, Louisiana, Mississippi, New Hampshire, New Mexico, South Carolina, West Virginia and Wyoming; in 1883, Delaware, Michigan, Minnesota and Missouri; in 1884, Dakota and Virginia, and, since the last meeting of the Association, Indiana and Iowa have swelled the total to thirty-three States and Territories of the Union, which now exercise some degree of legislative control over the practice of medicine within their borders.

---

[1] The quotation is the definition of *medicine* according to Webster

The general drift and tendency of this legislation are toward securing a recognized standard of professional attainments, evidence of which—with a few notable exceptions—is afforded by the presentation of a diploma of graduation from some legally chartered institution in good standing; or, in the absence of this, an examination more or less strict, in the various fundamental branches of medical science. The exceptions are in the States of Alabama, Mississippi, North Carolina and Virginia, where the diploma is ignored, and the applicant for admission to practice must establish his possession of the necessary skill and ability so far as an examination may determine the same.

As an evidence of fitness and qualification the diploma must obviously vary in character with the character of the institution by which it is issued. Medical instruction in this country is almost entirely a matter of private enterprise, and until within a few years, numerous "colleges" with the briefest of lecture-terms, conducted by the scantiest of faculties—in which one man often played many parts—innocent of clinical, surgical or anatomical material, and with the most charitable of examinations have graduated into the profession all who could pay the necessary fees and armed them with the talismanic diploma.

Since 1765 a total of 224 medical educational institutions have been founded—not established—in this country, of which number 105 are now fortunately extinct. There are still remaining 120 medical schools of all kinds in the United States, and among them, it is only fair to say are some in which the course of instruction, the facilities and the competency of the teachers are as high as anywhere in the world. Within the last twenty years there has been, in fact, a marked and gratifying improvement in the standard of medical education. I quote a few illustrations of recent improvement from my last report on "Medical Education in the United States and Canada." There are now 93 out of the existing 120 colleges in the United States, which exact an educational requirement as a condition of matriculation; in the first report there were only 45. Attendance on three or more lecture courses before graduation is now required by 24 colleges, as against 12 heretofore; and provision is made for a three or four years graded course by 58 others. Hygiene is now taught in 91 colleges, and medical jurisprudence in 97, as against 42 and 61, respectively, heretofore. The average duration of lecture terms has increased from 23.5 weeks to a fraction over twenty-five weeks; 7 more colleges have lecture terms of five months or over, and 10 more have terms of six months or over as compared with the sessions of 1882–1883.

While much of this progress is due to a general and increasing desire on the part of the profession to raise the standard of attainments necessary to enter its ranks, and to the enforcement of certain requirements in States which have enacted laws regulating the practice of medicine, it will not be invidious to attribute a fair share to the adoption in 1880, by the Illinois Board of a schedule of minimum requirements, enforced since 1883, and which prescribes that a medical college, in order to be held in good standing for the admission of its graduates to practice in Illinois, shall exact such a general preliminary education of the intending student before his admission to the lecture room, as will enable them to comprehend the instruction therein given; and shall issue its diploma conferring the degree of M.D., only upon the completion of such curriculum of study—as to the branches of medical science taught, the duration of the reading, and of lecture-terms, and the amount of practical instruction in hospital and at the bedside—as obtains in the average medical school.

Minnesota, Missouri and West Virginia exact substantially the same standard, and the work of the Minnesota Board especially has been wide-reaching and beneficial in this respect. The Iowa law, just enacted, confers similar powers, and the influence upon medical education of this group of States—Minnesota, Missouri, Iowa and Illinois—in establishing a uniform test of the "good standing" of a medical college, must be felt throughout the country. Fully one third of the new graduates every year settle in the West, and colleges must, perforce, take cognizance of this fact.

While the schedule of minimum requirements does not set up so high a standard as that aimed at by the American Medical College Association, it has the advantage of applying to all schools of medicine and of having been successfully enforced for three years. Furthermore, it is susceptible of modification, and the question is already being considered whether the time is ripe for a further advance. Until within a short time there had been, for sixty years, no marked departure from the orthodox three years of study and two courses of lectures as the requirements for graduation. But, as already shown, there are now twenty-four colleges which practically require four years of study and attendance upon three terms of lectures, and fifty-eight others which make provision for a similar extended course. The domain of medicine has so far widened its borders, especially within the present generation, that the methods and periods of study which sufficed thirty or forty years ago are no longer adequate.

A low standard of medical education, and the absence of uniform legal requirements are also responsible, almost exclusively, for the overcrowding of the profession. Did time suffice it would be interesting to present this matter in detail, but I can now only glance at some of the results of my study of this phase. In 1880 there were, according to the National census, 83,436 physicians in the United States. Since that date there have been added—exclusive of the foreign increment—23,531 new graduates, not including those of the last session, 1885-1886 This makes a total of 106,947, and is an annual increase of over five and one-half per cent while the annual increase of population is less than two per cent The annual death rate—basing that of the country at large upon the Illinois rate, which I have pretty accurately determined to be 12 38 per thousand—is less than that of adult males engaged in all occupations, and the difference will probably fairly balance the loss by those who retire from practice on account of old age, physical disability, and other causes not connected with the question of fitness and professional success

It will, then, be within bounds to say that the excess of the per centage of new graduates over the per centage of increase of population represents the number of unnecessary recruits to the ranks of the profession every year

The answer to the question, What becomes of them? is indicated by these figures concerning the profession in Illinois

June 14, 1880	
Total number in practice as shown by Official Register of that date	5,979
Total number of new certificates issued to new men up to February 10, 1886	2,063
Total number to be accounted for	8,042
February 10, 1886	
Total number in practice as shown by Official Register of that date	6,065
Total number died	344
" " left the State	1,061
" " abandoned practice	572
	8,042

That is to say, over seven per cent of the entire number failed as physicians and sought other modes of obtaining a livelihood It is noteworthy, by the way, that non graduates fall out in much larger proportion than the graduates, and that the graduates of three-course schools show the smallest per centage of loss, either by removal from the State or by abandonment of practice

Here are some instructive figures for Chicago In 1880 there were certificates issued to 172 new comers, five years later only 84 of these remained—a loss of over one half In 1881 there were 183, in 1882, 171, 1883, 209, and in 1884, 198 new comers, and in 1885 there remained of each year's group, 97, 116, 145, and 168, respectively In one year the loss was 15 per cent , in two years, 30 per cent , in three years, 32 per cent , in four years, 47 per cent , and in five years over 51 per cent

There are from 1500 to 2000 physicians in the State of Illinois more than are necessary to supply the legitimate demands for professional services, and who are not earning a comfortable livelihood from legitimate professional exertion And what is true of Illinois is probably substantially true of every State in the Union I will not stop to dwell upon the demoralizing effect of this condition—demoralizing to the individual, to the profession, and to the public Instances of this demoralization must be familiar to every member of the Association

On the other hand, and by way of contrast, I wish to add one further illustration from my personal experience During the past nine years my official position has made me familiar with the professional history and status of over 13,000 men, more or less directly connected with the practice of medicine in Illinois I have followed up, with especial interest and care, the careers of 789 out of 1000 physicians who studied four years and attended three terms before graduating These are, with few exceptions, the successful and prominent members of the profession in the different communities in which they reside They are well equipped by general education, by an ample period of professional study, by didactic and clinical instruction, and by hospital practice They are successful, as a rule, because they have fitted themselves to command success, and this Association can do few things more directly in the interest of the public and of the profession than to exert its further influence to increase their number while decreasing the number of the opposite class

The foregoing considerations seem to me to lead logically to the following conclusions

1 That the best interests of the public welfare demand the highest attainable standard of educational qualifications, skill and ability, as well as of professional and personal honor, integrity and morality, among those engaged in the practice of medicine

2 That it is the duty of the State to exercise the inherent plenary power and *authority which it possesses* for the protection and promotion of the public welfare, to secure such standard

3 That uniform State laws, exacting of every one aspiring to practice medicine proof of personal fitness and professional competency, would prove the most potent agency in improving the standard of medical education and in enhancing the dignity and usefulness of the medical profession

Specifically, I wish to suggest

That the American Medical Association should put itself upon record at this session as recommending the extension of the period of study to four years and of attendance upon lectures to three full terms, with ample hospital practice and clinical instruction, as the requirements for graduation in medicine,

That the Section on State Medicine be instructed to frame a law for the regulation of the practice of medicine, which law, when endorsed by the Association, shall be the standard with which all existing legislation on this subject should be made to conform as speedily as practicable, and which shall be urged for adoption by those States where no such law now exists

Whether such a law should establish a single State Examining Board, which, independent of any influence from the teaching interest through a diploma or otherwise, should admit to practice only upon actual examination, or whether the diploma of a college in good standing should be accepted as proof of necessary qualifications, are questions for earnest consideration If the policy of those States which are enforcing a standard of requirements whereby to test the good standing of a college, be continued in good faith and with as much effect during the next twenty years as during the past three, there would be little to choose between the two modes But before an independent Examining Board, intent only upon ascertaining the applicant's moral and professional fitness, the graduates of all colleges would stand alike upon their individual merits The effect would be to encourage the tendency to make the science of medicine as exact as it is complex, and to obliterate much of the element of empiricism which still justifies the use of the term "art" in its designation

By either mode the State may promote the public welfare, and through a wise regulation of the practice of medicine elevate the standard of medical education, which is the foundation of the practice And it seems to me especially fitting that the American Medical Association should again make its influence felt in this direction Its earliest labors, and among its most important and successful, were devoted to securing a "uniform and elevated standard of requirements for the degree of Doctor of Medicine" Its further efforts at this time should be attended with even greater success

ADVANCES AND DISCOVERIES IN PREVENTIVE MEDICINE

While there has been this marked and gratifying improvement in the branches thus far considered—now clearly recognized as belonging to the domain of State Medicine—the past year has witnessed equally satisfactory practical advances in the more familiar province of Preventive Medicine The number of sanitary organizations, both legal and voluntary, has increased, the contributions to sanitary literature have been numerous and valuable, and professional and public interest and effort have been enlisted as never before in attempts to remove or abate the preventable causes of disease, and to discover and perfect safeguards against the great pestilences To a great extent this has been stimulated by the prevalence of Asiatic cholera in some parts of Southern and Western Europe, and the consequent dread of its extension to our shores Fortunately, the apprehensions entertained at the date of the last meeting of the Association have not been realized, and the country has been practically free from any general or noteworthy epidemic, notwithstanding the prevalence of smallpox in some parts of Canada

State and Municipal Boards of Health have generally done effective work in their respective spheres In some States a general sanitary survey has been undertaken, and in many cities, towns and villages house to house inspections have been pushed, and the nuisances and defects thus disclosed, both of a public and private nature, have been largely remedied As was frequently remarked during the past summer and fall, an amount of general and local "cleaning up"—which is the essence of sanitation—was accomplished, which could not fail to have an appreciative effect upon the public health Unfortunately, the subject of the registration of vital statistics is in such an imperfect and unsatisfactory condition in this country that it is not possible to give any comparative figures by which to measure this gain for the whole country, but the mortality returns of the large cities generally show a reduction in the death-rate of 1885 as compared with the average death rate for several years previous

Four more State Boards of Health were established in 1885–86, the list now comprising the following thirty one organizations, the dates of the establishment of which are prefixed In 1869, Massachusetts,[1] in 1870, California, in 1872, Michigan, Minnesota, in 1873, Alabama, Wisconsin, in 1874, Maryland, in 1876, Colorado, Louisiana, New Jersey, in 1877, Illinois, Mississippi, Rhode Island, Tennessee, in 1878, Connecticut, Kentucky, North Carolina, in 1879, Delaware, Iowa, South Carolina, in 1880, New York, West Virginia, in 1881, Arkansas, Indiana, New Hampshire, in 1883, Missouri, in 1885, Dakota, Kansas, Maine, Pennsylvania, and in 1886, Ohio

These Boards, it is proper to remark, owe their existence largely to the influence of the American Medical Association, which has for years actively promoted their organization

While States and municipalities are thus generally exerting themselves for an efficient protection of the public health, our National health service remains in a very unsatisfactory condition Notwithstanding the efforts of the profession generally and of many health organizations to secure action by Congress for the remedy of this condition of affairs, nothing definite has yet been done Three different bills have been introduced during the present session, but there is little hope of either of them receiving favorable consideration

One thing remains clear Whether by the rehabilitation of the National Board or by the creation of a new organization, it is the imperative duty of Congress to complete the health defenses of the country Municipalities have their legitimate sphere within which they alone can act and are responsible, and next beyond which the authority and resources of the State are demanded But neither municipalities nor States can protect themselves against foreign pestilences without the assistance of the National authority, nor can they properly guard themselves against inter State infection or contagion without the cooperation of the same authority I have already dealt with this subject fully in an address before the National Conference of State Boards of Health in 1884, on the "Prevention of the Introduction of Asiatic Cholera," in a report made in the early part of the present year on our "Coast Defences against Asiatic Cholera," and elsewhere

Among the voluntary organizations the work of the American Public Health Association during the year has been of more than usual practical value The Lomb Prize Essays, and especially the "Report on Disinfectants and Disinfection," are substantial additions to sanitary knowledge The Sanitary Council of the Mississippi Valley has not been called upon for action, but its organization is preserved ready for an emergency Nothing definite was accomplished at the last National Conference of State Boards of Health, which was held during the Washington meeting of the Association

---

[1] This Board is now separated from the Board of Lunacy and Charity with which it had been associated since 1878

Abroad, a second series of sessions of the German Cholera Conference was held in Berlin, May 5–7, 1885, at which the subjects of the etiology and prevention of cholera were discussed by Koch, Pettenkofer, Virchow, Hirsch, and others, but without eliciting much which was new, or settling any of the mooted questions Prof Koch summarized the chief measures to be taken against the disease, and which, so far as they go, do not differ from those adopted by good sanitary authority in this country They dealt, however, exclusively with the local safeguards of sanitation, disinfection, isolation, supervision, etc , and ignored measures of exclusion of the disease by notification, maritime sanitation, supervision of ports of embarkation, and quarantines of inspection, observation and sanitary work at ports of arrival

Following the adjournment of the Berlin Conference, an International Sanitary Conference was held at Rome under the auspices of the Italian Government Although its paramount object was the discussion of questions relating to the prevention of cholera, the subject of yellow fever was also considered in the same relation, through the efforts of the American delegate, Dr George M Sternberg The delegates were of two classes, diplomatic and technical or professional, and at an early stage a Technical Commission was formed, which finally agreed upon substantially the same measures that advanced sanitarians in this country consider necessary for the limitation and suppression of cholera, yellow fever, and other communicable diseases which, under bad sanitary conditions of vessels and places, may become epidemic The exceptions to such agreement were the English delegates, composed of gentlemen whose experience with cholera had been mainly limited to India, and who, in consequence, deny the communicability of the disease through human intercourse, deny the infectiousness of cholera dejecta, and pronounce disinfection a farce and unscientific

The Conference adjourned to meet again in the fall, but this intention was not carried out As I have heretofore observed, the practical benefit to be derived from these conferences—in the absence of authority to make an international sanitary convention, binding upon all interested—is the interchange of views, the dissemination of knowledge, and the formulation of such views and knowledge So far as this country is concerned, they have not changed the status in any respect We must continue to rely, for the exclusion of cholera and other Old-World pestilences, upon such precautionary measures as can be secured at ports of arrival

The International Congress of Hygiene, which has been held successively at Brussels, Paris, Turin, Geneva, and the Hague every alternate year for the past ten years, and which should have been held this year at Vienna, has been postponed until 1887, for some reason not yet announced

With the object of determining to what extent such precautionary measures may be secured, especially against Asiatic cholera, I have made an inspection of the quarantine maintained upon the Atlantic and Gulf coasts from the St Lawrence to the Rio Grande The results of this inspection have been published by the Illinois State Board of Health, and as the report is accessible to the members I will confine myself on this occasion to the following conclusions I am more than ever convinced, since completing this inspection, that Asiatic cholera, as well as small pox and yellow fever, may be effectually excluded from the United States by an intelligent use of the agencies still at our command This is not a matter of speculation or theory A great advance has been made in practical sanitary science since 1878—notably in the administration of the maritime quarantines generally, and especially in the improved safeguards at the mouths of the St Lawrence and the Mississippi A quarantine of exclusion of the three principal epidemic diseases is now a matter of certainty, depending upon prompt notification of threatened danger, vigilant supervision over commercial intercourse with infected localities, inspection of all immigrants and the enforcement of their vaccinal protection, sanitation and purification of infected vessels and cargoes, isolation of those sick with these diseases, the surveillance of suspects during the periods of incubation, and the employment of other well defined preventive and precautionary measures which now constitute the best modern sanitary practice as applied to maritime quarantine

It must be repeated, however, that the cooperation of the National Government with State and local authorities, as well as its independent action in matters beyond the reach of States and municipalities, are indispensable to the proper protection of the public health The duty of Congress in this connection is even more pressing than the responsibility of providing defense against an armed enemy This latter is a more or less remote contingency, but the assaults of foreign pestilence are constant and continuous

Thus far we have been providentially spared an invasion of the Asiatic plague which is now filling Great Britain and Europe with anxiety and the real extent and prevalence of which we do not know The State Department has, within a few days, been requested to appoint sanitary inspectors at the United States consulates at Genoa, Naples, Marseilles and Venice, with instructions—in the language of the dispatch—"to give prompt information of the appearance of cholera in any of the consular districts named, and to report the departure of emigrants and merchandise for the United States from infected districts" But it is already known that the disease exists, and has for months, in several provinces of Italy, including Venetia—cases having been reported in Venice even in January last, it is known that the entire Mediterranean littoral is practically an "infected district," and that the northward march of the pestilence is causing alarm in Austria, Germany, Northern Europe generally, and in Great Britain The appointment of sanitary inspectors at one French and three Italian ports hardly seems adequate to the occasion At no time since cholera was announced at Toulon in 1883 has this continent been in as serious danger of an invasion of the disease as it is now And not alone does cholera threaten, but small pox is epidemic in many districts with which we are in direct and frequent communication [1]

I cannot close the consideration of this branch of my subject without a brief reference to the obvious necessity of National control of immigration Sanitary science and public hygiene touch both the individual and the National life at many points It is a question which is daily and hourly becoming more urgent—as the columns of every issue of every newspaper show—how much longer it will be safe or prudent to continue the unrestricted influx of the vicious, the insane, the pauper and the infected immigrant into our midst I will not attempt to discuss so momentous a question at the present time and amid the multiplicity of other topics I have already on more than one occasion expressed my views concerning it Neither the sanitarian nor the statesman can afford to longer ignore its consideration

The By Law calls for a report on the "advances and discoveries of the past year in the branches of science included" in the Section While the workers have been active and their labors faithful in many directions, it is to be feared that the discoveries in preventive medicine are too intangible or too incomplete to warrant much of positive statement There are new theories and claimed discoveries concerning malaria cholera, yellow fever, hydrophobia, tuberculosis and other diseases But whether Klebs and Crudeli or Marchiafava or Celli have found the malaria germ, whether Koch and his followers or Klein and his *confreres* are correct as to the causative connection of the comma bacillus with Asiatic cholera, whether Domingo Freire and Carmona are to share the obloquy of Ferran or the honors of Pasteur, whether bacteria themselves, or only their products, or whether neither one nor the other, but ptomaines and leucomaines produced by normal vital action, are the morbific agents of disease against which the sanitarian must direct his energies—these and similar questions are yet *sub judice*

The etiology of such common diseases as diarrhœa and diphtheria are still equally obscure, although some light seems to be thrown upon the origin of certain outbreaks of the latter disease by the observations of Dr Cresswell, who, in a paper recently read before the London Epidemiological Society, thinks he has traced six outbreaks of diphtheria, for which there was no other obvious explanation, to persons suffering from chronic tonsillar inflammation following attacks of diphtheria, and concerning whom he asks "Do the violent reactions of the tonsils of these persons to weather changes involve likelihood of rendering them diphtheritically infectious?" In other words, May diphtheria become chronic and liable to periods of infective recrudescence? The question acquires additional importance for the medical officer of health from the fact that the disease is unmistakably increasing in frequency and in its influence upon the death-rate

On the other hand, bacteriology may fairly claim to have advanced the science of water analysis, which no longer depends upon chemical and microscopic examination, but for the purposes of the sanitarian must be submitted to the further test of biologic experiment It has also certainly been of service in raising the art of disinfection to the level of an exact science, and the labors of Sternberg, Smart, Salmon and others in the bacteriological field in the United States, are not unworthy of comparison with the work in Europe

A reaction, however, seems to be setting in against the sweeping claims of the bacteriologists, and the assertion, for example, that the typhoid bacillus, after twenty years of experiment, has at last been demonstrated to be the true typhoid germ, will not stand the criticism of Prof von Pettenkofer, who, in a recent address on the relationship between bacteriology and epidemiology, points out that the entire environment of a micro organism and all the conditions which influence its growth, development and results, must be taken into the account, and that the mere fact of setting up a certain train of symptoms in a lower animal analogous to those observed in the human subject is by no means conclusive proof that the specific fungus transmitted from the one to the other is the sole cause of the disease in the higher organism In this address, which, like all of his contributions to scientific hygiene, is replete with food for thought, Pettenkofer asks what the study of bacteriology has done in advancing practical sanitary measures, and pertinently cites Lister's antiseptic system and Pasteur's rabic inoculation as instances of practical results accomplished without demonstrating the existence of a special form of bacteria or the actual morbific agent He might still more strikingly have referred to Jenner's immortal discovery

Concerning this subject of vaccination I beg to call the attention of the members to the additional proof cited in recent reports of the Illinois Board, of the superiority of humanized virus, not too far removed over bovine, in cases demanding promptness and certainty of action I think this practical point cannot be too strongly insisted upon, and it may be well to repeat, as a fitting conclusion of this address, my remarks on this subject in the paper on "The Relations of Small Pox and Vaccination" in the Fifth Annual Report of the Board (p 502) Treating of the promptness of action in the face of exposure it is there shown that humanized virus may be depended on much more certainly than bovine to act promptly Usually on the second or third, very seldom so late as the fourth day after the insertion of good humanized virus, the papular stage of vaccination will begin, and be followed, with almost unvarying regularity, by complete development of the vesicle on the eighth day, and by the subsequent appearance of the "index of safety"—the specific inflammation of the skin, or stage of areola Bovine virus, on the contrary, is subject to all degrees of delay, even to periods of weeks During the epidemic of 1881–83 this defect of bovine virus was more than once followed by serious consequences Not alone were lives lost among the exposed members of isolated families, where vaccination was resorted to early enough to have averted an attack had the virus acted promptly, but epidemic outbreaks followed under similar circumstances—that is, in localities where, upon the discovery of the first case, vaccination of all unprotected or exposed was at once resorted to, with bovine virus, but which either proved so tardy in its action, or so totally inert, as to allow the disease to gain a foothold

---

[1] It is worthy of passing note that cholera has invaded a new continent within the past few months Its introduction into Australia where it had been hitherto unknown furnishes a fresh proof if any were necessary of the transportability of the contagion of the necessity of supervision over maritime travel and commerce and of the importance of being prepared to meet and properly deal with an infected vessel upon its arrival

"The loss of a day," says Seaton in his Hand book of Vaccination, "may be the loss of a life" Hence the necessity for using virus which will act promptly, and not remain latent three, five or any other number of days Recent experience corroborates observations made during the period from 1866 to 1873, while Sanitary Superintendent of the city of Chicago, to wit That it is never too late to vaccinate after exposure, short of the actual appearance of the variolous eruption If the vaccination be performed within three or four days after exposure, and the areolar stage, the index of safety, be reached in the normal time, an attack of small-pox will almost invariably be averted With every additional day's delay the protective power will be weakened, but, contrary to the opinion laid down in the text books, experience proves that this protective power is not entirely exhausted until the vaccination is deferred at least up to the beginning of the febrile stage of small pox

Of 323 cases of small pox, tabulated in the preceding pages, in which the patients had never been vaccinated until after exposure, 305 recovered and 18 died, being a less mortality rate than among the 690 cases, which occurred among those who had been vaccinated before exposure only In some of these cases vaccination was not attempted until shortly before the beginning of the eruptive stage A reference to the Notes appended to the Tabular Statement of 1,100 cases, pages (296–327 inclusive), will show many instances where vaccination after exposure was successfully resorted to after the expiration of the period ascribed by Marson, Seaton, and others, as the limit beyond which, "whatever the local success of the vaccination, no constitutional effects will be imparted" In these Notes will also be found the details of cases where the attempt to vaccinate with bovine virus was only successful after one or more repetitions, with loss of valuable time or where such attempt finally proved wholly unsuccessful With the exception of one group of six cases—a family vaccinated by the father, a layman—all the vaccinations performed with humanized virus, after exposure,' were successful, and the patients recovered, with mild attacks of short duration But of such vaccinations with bovine virus, over 40 per cent were failures—that is, in the sense of manifesting activity before the variolous disease began—and of this 40 per cent of failures there was 30 per cent of fatal results

The general tenor of these views is also supported by the figures given in the January number of the *American Journal of the Medical Sciences*, quoting from the "Arbeiten aus dem Kaiserlichen Gesundheitsamte" "The increase of unsuccessful vaccinations in the German Empire was due to the vaccinations in the Grand Duchy of Hesse, where, owing to the introduction of animal lymph, the number of successful vaccinations decreased from 97 31 per cent, in 1881, to 63 44 per cent, in 1882" And the German Commission on Vaccination report—"*For* vaccination with humanized lymph may be mentioned the certainty of its action, the symplicity of its machinery, the inexpensive manipulation of the lymph *Against* the use of animal lymph may be taken the less certainty of its results, a more complicated machinery and the greater cost of production of lymph" Nevertheless the Commission conclude that animal "is capable of supplying the place of humanized lymph" Commenting upon this, Dr Buchanan, the medical officer of the Local Government Board, in his last report (1884) says "In England, these are identical when the operation is done directly from arm to arm, or calf to arm, thus, two operators at the Animal Vaccine Establishment, in London, produced an average of 988 vesicles for every 1000 insertions of calf lymph made on infants Now the employment of stored lymph reduces this average by some 20 or 30 per cent, whether humanized or animal lymph be used Direct vaccination from calf to arm is only possible in large centres of population In sparsely inhabited districts the use of stored lymph becomes a practical necessity, unless arm-to arm vaccination be resorted to, hence, there is much probability that the decision of the German Commission will tend to reduce the condition of the German people, as to protection against small pox, to the condition of the inhabitants of the Grand Duchy of Hesse"

I see no reason—but the contrary—for modifying the judgment expressed in the eleventh of the propositions, concluding the paper above referred to

"That the relative advantages of bovine and of humanized virus are still *sub judice* as to the most important point, namely their comparative protective powers Humanized virus has been tested for more than eighty years, bovine for about sixteen The former descended in an unbroken line of vaccinations from the original operations of Jenner, still produces the same typical results, the same regular sequence of phenomena, as those obtained by Jenner himself, the latter produces almost as many varying results as there are propagators In cases of emergency, where promptness of action is important, the preference must be given to the humanized"

ORIGINAL ARTICLES

SYPHILIS IN ITS RELATIONS TO DENTAL AND ORAL SURGERY[1]

BY G FRANK LYDSTON, M D,

PROFESSOR OF SURGERY IN THE NORTHWESTERN COLLEGE OF DENTAL SURGERY LECTURER ON GENITO URINARY AND VENEREAL DISEASES IN THE COLLEGE OF PHYSICIANS AND SURGEONS CHICAGO ILLINOIS

The time is long since past when an apology was necessary for bringing a subject of general surgery before a convention of dental and oral surgeons Dental and oral surgery has of late years, come to be recognized as a specialty of general surgery, and most justly so The progressive dentist of to day is earnestly striving to attain all of the qualifications necessary to the true specialist, who has been so aptly described as a practitioner "who knows something of everything, and everything of something" There is perhaps no specialty that involves more of the principles of general medicine than that of dental surgery It is greatly to the credit of the dental tal profession that it is now recognizing this fact

---

[1] Read in the Section of Dental and Oral Surgery on May 4 at the Thirty Seventh Annual Meeting of the American Medical Association

There is perhaps no general disease which figures as a more important factor in dental and oral practice, than syphilis The prevalence of this disease, as revealed to the general surgeons and specialists of our large cities, is somewhat appalling, and when we stop to consider its insidiousness, the importance of the subject is at once appreciated The oral symptoms of the disease, in well managed cases, are nowadays the most important of all the local manifestations which characterize its active period The reasons for this are at once apparent The vast majority of well treated cases will escape skin lesions altogether, or at most will have nothing more severe than the roseola, which is of the most trifling importance, but very few indeed will be found to go through a course of syphilis without being afflicted with oral symptoms of greater or less severity Such, at least, has been my experience in quite an extensive field of observation The argument may be advanced that this statement applies only to the better class of patients, but it is just this class whom the dentist is most frequently called upon to treat When the facts seem to controvert the proposition which has been advanced, they seem to be the result of causes independent of the intrinsic severity of syphilis Another consideration that tends to enhance the importance of the oral syphilides, is the fact that it is through these lesions that innocent persons are most apt to become infected

In the matter of prophylaxis of oral lesions in syphilis, the function of the dentist is acknowledged by progressive specialists, to be of paramount importance The patient who would go through a course of syphilis and of treatment therefor, with a minimum of suffering, will place himself in the hands of his dentist, as preparatory to undergoing strictly medicinal treatment The patient with tartar about the teeth, carious cavities, or sharp or rough surfaces upon the teeth, jutting against the buccal mucous membrane or tongue, is almost sure to suffer from luxuriant crops of mucous patches, or destructive ulcerations In addition to this inconvenience, we will find that under the faulty conditions mentioned, reflex excitation of the salivary and mucous glands is constant, and when, under such circumstances the stimulating effect of mercury is superadded, ptyalism or even stomatitis, is quite likely to occur With the teeth and gums in bad condition, the patient is usually so intolerant of mercury that he cannot take a sufficient quantity to benefit his syphilis

In passing, it may be well to caution against carelessness in the matter of cleansing all instruments used in dental practice, whether the patient be known to be syphilitic or not Syphilis is so widely disseminated, even among respectable people, that it is unsafe to run any risk in the matter The oral lesions of syphilis are very actively contagious during the early months of the disease, and it has been supposed that they retain their contagious properties for a much more prolonged period than do other lesions A lesion so insignificant as to escape attention, may give rise to a highly contagious secretion This secretion becomes mingled with the saliva and may adhere to instruments for an indefinite time Just how long the contagium may retain its vitality is unknown, but it is probably a prolonged period I am happy to say that very few, if any, accidents have been laid at the door of the dentist, but that fact should not render him one whit less cautious I have myself seen one case in which there were strong grounds for suspicion of infection by dental instruments It is to be said, however, that the dentist in question was not a reputable member of the profession

A certain preventive of such accidents is to dip all instruments in pure carbolic acid, both before and after using, in addition to the ordinary measures of cleanliness Ordinary solutions of antiseptics are too weak to be efficacious Iodine and bichloride of mercury corrode the instruments, and the flame of the alcohol lamp destroys their temper, hence pure carbolic acid is the most efficient and available antiseptic If prepared in the manner suggested, infection from instruments is impossible A safe rule in surgery is to avoid the use of an instrument which we would hesitate to put in our own mouths, or thrust in our own flesh, if necessary

In beginning the discussion of syphilis as an etiological factor in dental and oral lesions, it is proper to consider the question of hereditary syphilis This is a subject of much more importance to the dentist than is generally supposed It has long been well understood that syphilis is capable of producing marked disturbances of the nutrition and development of the teeth This fact has been developed chiefly through the efforts of the renowned syphilographer, Mr Jonathan Hutchinson, of London It may seem presumptious to criticise anything emanating from so eminent an authority, but it is my humble opinion that Mr Hutchinson's description of the teeth and facies of the syphilitic child, has tended to mislead us Observe his original description "The permanent teeth are irregular and defective, they are small, vertically notched, rounded at the corners or pegged, and are often marked with seams and ridges or lines, of a dirty brownish color These characters are especially marked in the central incisors, which are the test teeth" He further says "Next in value to the malformation of the teeth, are the state of the patient's skin, the formation of his nose and the contour of his forehead, the skin is almost always thick, *pasty and opaque* *It also shows* pits and scars, the relics of former eruptions, and at the angles of the mouth are radiating linear scars, running out into the cheeks The bridge of the nose is almost always low, and broader than usual, often it is remarkably sunken and expanded The forehead is usually large and protuberant in the region of the frontal eminences, often there is a well-marked depression just above the eyebrows The hair is usually dry and thin, and now and then the nails are broken and splitting into layers"

It would be interesting to know how many cases each of the gentlemen present have had under observation, that tallied with the above description Exceptionally, indeed, has it been my privilege to observe such a *tout ensemble* of symptoms, yet it has been my lot to observe and treat many unequivocally syphilitic children It has been the custom to look for Hutchinson's test teeth, seldom indeed are they found, ergo, the patient is not syphilitic

Now, as a matter of fact, the children who are so badly affected with syphilis as those described by Hutchinson, seldom arrive at the period of dentition, for the vast majority of the victims of severe hereditary syphilis fail to survive the third month after birth It is the child who suffers from attenuated hereditary syphilis who survives, and it is with him that the dentist has to deal, hence the extreme cases described by Hutchinson are not fair criteria of the effects of syphilis upon the teeth, as seen in dental and oral practice, although such cases may be met with

When I use the term attenuated syphilis, I mean hereditary infection not severe enough to cause typical syphilitic lesions, but severe enough to cause mal nutrition Like all conditions of perverted nutrition occurring during the period of dentition, that produced by hereditary syphilis gives rise to defective and irregular development, faulty texture, and early decay of the teeth The syphilitic cachexia is preeminently liable to produce such results but unfortunately there is nothing characteristic in the resulting physical appearances, in the greater proportion of cases Very frequently (perhaps generally) if the constitutional element be recognized at all, it is dubbed "scrofula" or "rickets!" Old Proteus masquerading under a respectable name, but none the less susceptible to the eloquent persuasion of our reliable friends, mercury and iodine I venture to say that in quite a proportion of troublesome cases of dental caries and irregularities in children, constitutional treatment of this kind will prove a very useful auxiliary to the efforts of the dentist

In the consideration of this important question, there are several facts to be borne in mind by the dental surgeon These may be formulated as follows 1st The great frequency of syphilis, even in refined society 2d The recklessness as to the consequences of matrimony exhibited by the average syphilitic patient 3d The great percentage of danger of hereditary transmission of even remote syphilitic taint 4th The large number of tainted children that he must necessarily be called upon to treat as a consequence of the foregoing propositions 5th That Hutchinson's test teeth and facies syphilitica are by no means a *sine qua non* in hereditary syphilis It may be readily observed that the duty of the dental surgeon is not completed with the local treatment of such cases as those under consideration, but he should recommend a suitable course of constitutional treatment The time is coming when every dentist may not only recommend, but will be competent to carry out, such a course in detail

The co relation of so called struma and hereditary syphilis has of late years come to be suspected, and the tendency in certain quarters to regard many cases of alleged scrofulous lesions as remote manifestations of syphilitic taint, is rapidly gaining ground This, indeed, was tacitly admitted years ago by Astley Cooper, whose favorite remedy for scrofula consisted of the bichloride of mercury, in Huxham's tincture of cinchona bark

In connection with the subject of hereditary syphilis, it is well to remember that there is such a thing as late hereditary syphilis, in which, while the patient escapes all manifestations of the disease during childhood, save perhaps malformed or crumbling teeth, lesions of the mouth, jaws, and nasal cavities appear later in life Ziessl has collected over one hundred of such cases, and has reported a number observed by himself These cases strongly resemble tertiary acquired syphilis, and appear, as a rule, about the period of adolescence Osseous and nervous lesions of a severe character usually predominate, the osseous lesions having a special predilection for the nasal and palatal bones I recall a case of caries of the skull of this character

It may be remarked in passing that many cases of ozæna, or fetid nasal catarrh, with resulting necrosis or caries of bone or cartilage, are attributed to simple catarrhal inflammation, the diagnosis being based mainly upon the absence of specific history or typical lesions Most of the cases are the result of acquired syphilis, but some of them undoubtedly are late manifestations of hereditary taint As far as my personal opinion is concerned, I have been unable to convince myself that simple catarrh is ever the cause of nasal or palatal necrosis or caries I recall two cases in which failure to accept this view on the part of the family physician, resulted in serious and irreparable disfigurement To apply this to dental and oral practice, it is only necessary to remember that necrosis, or caries of the palate or jaws, accompanied by or dependent upon, alleged fetid nasal catarrh or ozæna, can, with almost absolute safety, be pronounced syphilitic It must be borne in mind, however, that such lesions may represent the errors or misfortunes of a past generation, and may therefore cast no discredit upon the respectability of the patient

The primary lesion of acquired syphilis very rarely occurs within the mouth, chancre of the lip being more frequent The dental surgeon will therefore seldom meet with it I have already alluded to a case in which infection by dental instruments was the presumable origin of the disease Unfortunately, I did not have an opportunity to observe the case from its inception At the time I first examined the patient, secondary sore throat and mucous patches had already appeared A small sluggish indurated ulcer existed upon the gums, below the lower middle incisors The glands beneath the jaw were the first and only glandular changes to attract the attention of the patient, and they were disproportionally enlarged as compared with the rest of the glandular system It was claimed by the patient that the sore upon the gums appeared about three weeks after having had her teeth cleaned and put in order The "kernels," as she termed them, beneath the jaw, appeared about a week or ten days later There were no evidences of venereal infection, and as far as physical appearances went she had never been exposed to venereal contagion

I recall another case of interest in which the primary lesion appeared upon the tip of the tongue There was very little induration about the sore, which appeared as a shallow ulcer the size of a split pea, with a grayish base covered with an exudate very like a diphtheritic membrane The glands under the jaw enlarged, and the case ran the ordinary course of syphilis The source of infection was traced, and I found mucous patches in the mouth of the woman from whom the disease was contracted She herself gave a clear history of having contracted her syphilis from her husband In this case, a diagnosis could have been made in no other way than by tracing the source of infection, and by observation of the subsequent course of the case, inasmuch as the primary lesion was decidedly atypical

The oral symptoms of the secondary or active period of acquired syphilis are of the most vital importance to the dental surgeon, by virtue of 1st, their contagiousness, 2d, their liability to be mistaken for innocuous lesions, 3d, the prolonged period during which they are apt to develop at any time, and often without the patient's knowledge, 4th, the necessity for nearly all syphilitics to consult their dentist sooner or later, during the active period of syphilis The later, or so called tertiary lesions, are so destructive that they usually announce their presence at once, and more important still, they are probably rarely contagious

The lesions of the mouth occurring during the course of constitutional syphilis, may be briefly classified as 1st Excoriations or erosions, and rhagades, or fissures, occurring with or without more or less generalized inflammation of mucous membrane 2d Mucous patches and tubercles 3d Early ulcerations, superficial or deep 4th Late ulcerations, superficial or deep 5th Early and late bone and periosteal lesions

Excoriations or erosions and fissures are the most dangerous to the safety of healthy persons, from the fact that they are often precisely identical in their physical characters with similar lesions from simple causes Their secretion, however, is extremely contagious, and the act of kissing may be followed by disastrous results Fortunately, these lesions are usually quite irritable, occurring, as they generally do, in smokers, and they consequently usually announce their presence most emphatically These lesions may appear at any time during the course of syphilis, but are most often seen during the first year They are due to the co existence of local irritation with constitutional depravity, and as both of these conditions occur from simple causes, it is obvious that great caution is necessary in the matter of diagnosis

These erosions and fissures are distinguished in most cases by the generally reddened and tender state of the mucous membrane Unlike other syphilitic lesions, they are sometimes extremely painful, the suffering being greatly disproportionate to the actual lesion present A diagnosis of syphilis is not warranted in these lesions unless confirmed by more positive indications than those afforded by the lesions themselves

The typical mucous patch is the most frequent of the oral lesions of syphilis It represents a papule upon a mucous surface, and also represents the foundation of most of the ulcerative lesions of the disease, *i e*, a localized proliferation of cells It is a true hyperplasia of tissue, and this is an important element in the diagnosis The patch is elevated, of a grayish or yellowish color, and varies in size from a scarcely perceptible point to a patch or collection of patches the size of a silver quarter, rarely larger There is no inflammatory area about it as a rule, but if irritated, the ordinary characters of inflamed mucous membrane will be presented.

There is a peculiar form of mucous patch which is sometimes seen about the borders of the tongue, that merits special description It is the most obstinate of the lesions of the tongue, excepting, perhaps, the rare form known as syphilitic psoriasis of the tongue It appears in the form of a furrow or cleft in the border of the organ upon one or both sides This furrow has an appearance resembling a puckering in or involution of the mucous membrane The borders of the lesion are rounded, and covered with a fibrous layer of cloudy epithelium, which looks very much like a thin film of coagulated albumen

The mucous tubercle is an exaggerated mucous patch, and consists of a similar but more extensive aggregation of cells Either the patch or the tubercle may go on to ulceration

There is a peculiar tendency in some cases of mucous patches to a circinate arrangement very like ordinary ringworm of the skin in form This is due to a coalescence of circular patches, and is especially marked upon the roof of the mouth, involving both the hard palate and velum When this circinate eruption is seen in the mouth, nothing more is wanted to complete the diagnosis of syphilis, although corroborative evidence should always be sought for

The special points which are to be sought for in the diagnosis of syphilis will serve in all cases, save in late syphilis, where we may be compelled to depend upon the history and the appearance of the lesions alone

These evidences are, First, A diffuse passive congestion or hyperæmia of the fauces and pharynx, without corresponding pain in deglutition Should the patient have a bad cold at the time, this sign ceases to be of great value Second, Alopecia or falling of the hair, in the absence of parasitic disease Third, Coppery spots or cicatrices, the remnants of faded skin lesions Fourth, The presence of scabby spots or pimples on the scalp Fifth, Enlargement of the lymphatic glands, those of the neck being especially accessible Enlargement of the sub occipital glands is pathognomonic Sixth, A possible history of bone pains and aches, worse at night, this sign being more important in late syphilis Seventh, The presence of circumscribed periosteal swellings or nodes

It will be observed that most of these signs can be sought for and often found by the dentist, without examination of any other regions than the oral cavity, pharynx, head and neck Indeed, a quite thorough examination may often be made, without exciting suspicion, if such a course be politic For obvious reasons, I do not include some diagnostic points for which the general surgeon would seek An innocent and to all appearances quite casual search for evidences of such diseases as scrofula, rheumatism and catarrh may develop some startling and valuable results in dental and oral practice When the patient is sufficiently cosmopolitan or candid, the history of infection will clear up any possible obscurity A useful point in the diagnosis is that the patient is usually distressingly healthy aside from the local manifestations of disease, and even these may be treated with great indifference

There is a peculiar lesion of the tongue to which allusion has already been made, that merits special attention, although it must be confessed it is a lesion that is rarely seen I refer to syphilitic lingual "psoriasis" It closely resembles simple psoriasis of the tongue, and is apt to make its appearance late in the course of the disease, when nothing but the history of the case remains to assist in the diagnosis It consists of a thin whitish pellicle, due to thickened epithelium, the mucous membrane beneath having a peculiar scalded appearance Quite often, the tongue presents large irregular patches of scalded looking mucous membrane The borders of the tongue are most apt to be affected That these lesions are dangerous, is shown by a case reported by Fournier in which a patient with this lesion infected a healthy woman by kissing, five years after he contracted the disease It is the most obstinate of lesions, and will persist after all other evidences of syphilis have yielded to treatment I have a case at the present time that is absolutely intractable to therapeutic measures

There is a form of ulceration of the mucous membrane which occurs in debilitated states of the system, and is popularly known as "canker" It is met with especial frequency in nursing women This is important, in view of the fact that it may be mistaken for syphilis, and *vice versa* These erosions or ulcerations are superficial in character, usually multiple, and appear in successive crops They are very difficult of cure sometimes, and require a treatment which is the direct antithesis of that required for syphilis The eruption is probably a herpes, the basis of which is a neurosis, and in its treatment nervine tonics are indicated

These lesions are preceded by simple hyperæmia, with little or no swelling and evidently no new formation Their color is usually pearly white, or, if greatly inflamed, they present a yellowish base They look very much as if the mucous membrane had been snipped out with scissors They are often quite painful There are no evidences of constitutional taint in the form of glandular engorgement, excepting in some strumous cases, in whom a diagnosis may be entirely dependent upon the crucial test of treatment Under mercury and iodine, these simple cases will get worse A complete change of air and scene may be necessary for their cure It is not well to be hasty in the matter of diagnosis, but it is indeed a safe rule that, to the surgeon, no one should be above suspicion

Some of the very late lesions of the mouth in syphilitic subjects are very difficult of diagnosis, the history alone being all that we can depend upon These lesions are slight erosions and exudations, and, as a rule, are not contagious Oftentimes, perhaps they are not really syphilitic, and depend upon, first, exhaustion and malnutrition produced by the previous general infection, second, mercury in too free doses Most often, both of these causes are contributing factors It should be remembered that because a patient has once had syphilis is no reason that he should not thereafter have simple and respectable lesions of the oral cavity The excessive use of mercury, or even its moderate use, in special cases of idiosyncrasy, may produce lesions of the greatest importance to the oral surgeon Much uncalled for abuse has been heaped upon this valuable drug, but after all, it is sometimes responsible for morbid changes, especially in the mouth It is debilitating in large doses, and as eliminated by the salivary glands, it is apt to be irritating I see many cases of supposed mucous patches and syphilitic ulcerations which I am inclined to attribute to mercury When, therefore, I find that the mouth not only does not improve, but really grows worse, under mercury, I infer that the trouble is really due to the drug, and substitute iron and tonics The horribly fetid odor of the breath, due to decomposing fat, and the sponginess and tenderness of the gums, will indicate the probable cause in these cases, for lesions due to syphilis *per se* rarely fail to improve under mercury, when carried to its full physiological effects It is certainly a suggestive fact that mercury is capable of preventing skin lesions in a large proportion of cases of syphilis, but does not seem to completely prevent oral manifestations in the majority of cases While not yet prepared to formulate a rule, I am free to say, that the patients whose mouths have given me the most trouble, have been those to whom mercury has been given most freely

It has been noted by dental surgeons that mercury is capable of inducing the condition known as pyorrhœa alveolaris From personal observation I am convinced of the correctness of this view There is also little doubt in my mind as to the probability of syphilis itself being the cause in some cases Although not familiar with dental literature upon this subject, I have found in conversation with several members of the dental profession, that cases occasionally occur which are attributed to syphilis It is obvious that in these cases, constitutional treatment is of the greatest importance, and is the only method of accomplishing that basic principle of all treatment —removal of the cause

Although the ordinary erosions, mucous patches, and ulcerations of the oral cavity occurring during the secondary period, are annoying, they are rarely destructive This cannot be said of the late secondary and tertiary lesions A characteristic feature of late syphilis is a tendency to the deposit of so-called gummy material or syphiloma in various situations This consists essentially of an accumulation of cells of a low grade, which obstruct the tissues, and impair their vitality

This deposit has a special predilection for the osseous tissues and periosteum, and often affects the jaws and hard palate, with or without involvement of the nasal bones Its results are inflammation, caries, or necrosis In the diagnosis we rely upon the history somewhat, but there is usually no difficulty in passing an opinion upon the physical appearances alone If seen early, a gummy tumor may be detected It is a hard inelastic swelling over the bone It is not especially tender, and is not much discolored, as a rule, although it may be of a bluish tint It is not very painful, except at night, when the pain is apt to be severe Taken all in all, the morbid process is a passive one Later on, the gumma softens at its centre, and the skin becomes thinned and discolored Ulceration may occur, or under treatment the softened material may resolve If the tumor absorbs, a depression remains in the surface of the bone If ulceration occurs, the probe will usually strike bare and roughened bone at the bottom of the cavity When small bones, such as the vomer and palate, are involved, nutrition is so impaired that necrosis occurs in many cases In such cases the bone is apt to come away entire and preserve its natural form Nothing but syphilis will thus dissect out a bone The resulting deformity in these cases is very marked, and should the palate be involved, speech is so impaired that the aid of the dentist is necessary With an obturator, these cases of acquired cleft palate may be made quite comfortable Operation is rarely productive of great benefit, on account of the low vitality of the tissues in long standing cases of syphilis

It is probable that, with the exception of phosphorus necrosis, traumatic necrosis, and cases undoubtedly due to diseased conditions of the teeth, the majority of cases of necrosis of the jaws, nose and palate are due to syphilis, more or less remote The dental engine has done excellent service in these cases In the hands of Dr Goodwillie, especially, it has done good work It has been shown that by early operation the necrosis may be limited and recovery hastened

I have already encroached upon the time of the Section to a considerable extent, yet I have not been able to do more than outline in a general way the more important points of my subject I am well aware that the ground has not been thoroughly covered, but if points in the individual experiences of the members have been recalled to mind, the object of this paper will have been accomplished

125 State St, Chicago

MEDICAL PROGRESS

Scarlet Fever from Cows Milk —At a meeting of the Epidemiological Society, on April 14, Dr James Cameron read a paper entitled, "Observations on a certain Malady occurring among Cows at a time when the Milk produced by them disseminated Scarlet Fever," of which the following is an abstract The author began by stating that he proposed to lay before the Society a short description of a cow disease which had been the subject of investigation by Mr W H Power, Dr Klein, and himself during a recent inquiry into an outbreak of scarlet fever which occurred in certain districts in London and in Hendon amongst consumers of milk derived from a dairy farm situated within his sanitary district It was not his intention to discuss the circumstantial evidence which led to the discovery of this disease amongst the cows, or which proved its connection with the milk These were respectively in the hands of Mr Power and Dr Klein The disease is certainly not a new one, it has been known to some farmers and cowkeepers, at any rate, as a catching malady under the designation of sore teats, blistered teats, and the like, but it has never hitherto been recognized or described as a specific contagious disease amongst cows, or considered to have any concern with the causation of scarlet fever in the human subject, and has commonly been regarded as a malady of little importance After giving an account of the farm, and speaking favorably of its sanitary condition, the author stated that the disease first appeared in some newly purchased cows, which had arrived about a fortnight before the first cases of scarlet fever occurred among consumers of the milk It was subsequently ascertained that one of these cows, which was the first sufferer, introduced the disease into the herd, the malady spreading from shed to shed until the whole herd of 100 cows, with very few exceptions, was attacked, while, coincidently with the spread of the disease among the cows and into the various sheds, scarlet fever made its appearance, and continued to prevail among the consumers of the milk procured from these sheds Dr Cameron described the disease generally as a specific contagious disease, occurring usually in the first instance amongst newly calved cows, and capable of being communicated to healthy cows by direct inoculation of the teats with virus conveyed by the hands of the cowman The disease may continue from four to six weeks, and is characterized by general constitutional disturbance, a short initiatory fever, a dry hacking cough, sometimes quickened breathing, sore throat in severe cases, discharges from the nostrils and eyes, an eruption on the skin round the eyes and hind quarters, vesicles on the teats and udder, alteration in the quality of the milk secretion, and well marked visceral lesions The author then proceeded to discuss the symptoms in detail, and referring to the eruption on the teats and udder, stated that from five to seven days after the commencement of the illness one or more teats became much swollen, and vesicles or bullæ shortly make their appearance upon them These vesicles are usually rubbed and broken in milking, leaving sores with raised ulcerated looking edges; at this period the disease appears to be easily conveyed to other cows. Shortly after the vesicle has been broken a brown scab forms upon the sore, and this may remain from ten days or a fortnight to five or six weeks, a thin discharge escaping from beneath it until the sore is healed. There is a tendency for the milk to become ropy during the illness, but this is not always present, and as a rule this condition is not apparent until the milk has stood for five or six hours; hence the milk from this farm was distributed before this peculiarity had had time to show itself. After describing the difference between cow-pox and the disease in question, Dr. Cameron urged the necessity for examination of cows and for the removal of all suspected animals from the milk business, and he expressed the hope that the Government would see fit before long to institute some means of more effectually protecting the general public against the recurrence of these disastrous outbreaks of disease which are due to milk.—*Lancet*, May 15, 1886.

DELIRIUM TREMENS CAUSED BY CHEWING TEA.—DR. W. B. SLAYTER, of Halifax, N. S., relates a peculiar and interesting case of this nature. A girl complained of sleeplesness, nervousness, and repeated twitchings of the muscles of the face and extremities, which would continue for several minutes at a time. These symptoms had been present for several months previously. Her mistress informed me that the girl had been acting strangely for several days. She was wandering in her mind at times, and imagined people and evil spirits were about her seeking to do her harm. She had not slept for several nights, and on one or two occasions had been found at night wandering about the house. Pulse 96 and small; tongue dry and brown; eyes suffused; irregular action of the heart-weight at præcordia; sallow complexion. A dose of bromide of potassium and hydrate of chloral gave her a good rest for the night, and next morning she was sent home to her mother.

At 4.30 A. M. three days later I was again summoned to see her. Some men had found her walking about one of the wharves of our city, in the neighborhood of her mother's house. They tried to persuade her to go home, but she broke away from them and endeavored to jump off the end of the wharf, when she was caught and taken to her home. I found her with a pulse of 110°, a very dry and brown tongue, suffused eyes, no marked increase of temperature, violent delirium, and tremulous hands and arms—in short, the well marked symptoms of delirium tremens. Her mother informed me that she had complained of a good deal of pain in the abdomen, and on examination I found a smooth, quite hard tumor in the right iliac region, half as large again as an ordinary orange. Owing to the violent delirium I was unable to find out whether it was tender to the touch or not. A hypodermic injection of morphia somewhat relieved the nervous symptoms. A brisk cathartic brought away a mass of hardened fæces, followed by a large quantity of a thickish tarry-looking excreta, which seemed to be made up of tea-leaves in different stages of maceration, quite a large proportion, probably a third, being tea leaves quite unchanged in appearance or color. Bromide of potassium and chloral in a few days quieted the nerve centres; good nursing, proper diet, and tonics soon restored the patient to her usual health. After the action of the cathartic I found the abdominal swelling somewhat lessened in size, but it was not until several doses at intervals had been administered that the tumour entirely disappeared. After each dose a quantity of tea leaves were expelled. In about three weeks the evacuations were normal in appearance, and her general health was fairly restored. The patient informed me than when about 17 years of age she went to one of the New England towns to work in a factory, and there contracted the habit of chewing tea—a habit, quite common amongst the factory girls. She thought she chewed on an average about half a pound of tea daily, and some days more. It made her feel better able to work. Of course, as to quantity her estimate may not be depended on. She had never been addicted to alcoholism, and ascribed her attacks solely to the tea chewing. She tried to give it up, but felt so nervous and fidgety as to be compelled to return to the old habit. The second attack caused me to copy from my case-book the notes taken at the time. The only points of importance are the *cause* and the *repeated and continuous muscular twitchings*. Of course most physicians have met with many cases of great nervousness and fidgetiness occasioned by excessive tea drinking, but I cannot find any record in any of the works on medicine or materia medica within my reach of such severe symptoms being induced by tea chewing. Ringer tells us that "the Physiological Committee presided over by the late Dr. Hughes Bennett concluded that the *motor nerves are unaffected*." The long continued repeated muscular twitchings would seem to contradict this portion of the Committee's report.—*Lancet*, April 24, 1886.

KRULL'S METHOD OF TREATING CATARRHAL JAUNDICE.—M. R. LONGUET gives an account of this treatment and of Lowenthal's confirmation of its efficacy. It seems that Krull published an account of his method in 1877, but that it excited little attention until Lowenthal took it up. It consists simply in the administration of enemata of cold water; the first injection, of one or two quarts, at a temperature of 59° F., is thrown in gently and retained as long as possible; on the succeeding days an enema is given every morning, the temperature being gradually increased to 71.6° F., which is not exceeded. The cure is generally accomplished by the fourth day, and in no instance have more than seven injections been found necessary. No failures are mentioned, although several of the cases were of long-standing and had resisted the most varied treatment, including the use of that *ultima ratio* of the Germans Carlsbad water. No medicine is allowed to be taken, and the diet is restricted to vegetables. Lowenthal, who used injections somewhat colder than those mentioned, tried the method in forty one cases, and he absolutely confirms Krull's report of its efficiency.—*New York Medical Journal*, May 1, 1886.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

The Editor of this Journal would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

Subscription Price Including Postage

Per Annum, in Advance $5 00
Single Copies 10 cents

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in registered letters

Address
Journal of the American Medical Association,
No 65 Randolph Street
Chicago, Illinois

SATURDAY, JUNE 12, 1886

THE BLOOD PLAQUE AND COAGULATION

The two most notable papers that have appeared for some time on the physiology of the blood are the "Cartwright Lectures," by Professor William Osler, on "Certain Problems in the Physiology of the Blood corpuscles," and a paper by Mr Geo T Kemp, Fellow of Johns Hopkins University, "On the so called 'New Element' of the Blood and its Relation to Coagulation," published in *Studies from the Biological Laboratory*, Vol III, No 6 Dr Osler's first lecture deals exclusively with the blood-plaque, while in his third he treats of the relation of the corpuscles to coagulation

As is well known, the blood-plaques have been variously designated as elementary corpuscles, globulins, granular *debris* or Schultze's granular masses, hæmatoblasts, and Bluttplattchen (by Bizzozero) In preference to the literal translation of Bizzozero's term, blood-plate, both Osler and Kemp have adopted the term blood-plaque as being more euphonious Various writers have referred to this element as the "third corpuscle," but the objections to this term are so grave that it has been practically abandoned The plaques may be described as minute elements circulating in the blood plasma with the other corpuscles, and possessing such specific and distinct characteristics that they must be numbered among the normal histological constituents of the blood Dr Osler gives their size as from one-sixth to one half that of a red corpuscle, which is sufficiently accurate for elements showing such variations in size Sometimes, however, a plaque may be found which measures as much as 5 mm It is a circular disc, with a smooth, well defined margin, and occasionally some are found which show a bilateral depression "It is a homogeneous, smooth, structureless protoplasm, of a light grey color, and in the unaltered state no nucleus can be found" As to whether a nucleus is found after staining there is considerable dispute After the blood has been withdrawn from the vessels two peculiarities of the plaques occasion a serious hindrance to their recognition as special elements of the blood the rapidity with which the protoplasms alter, and their tendency to adhere to one another and to substances with which they come in contact So long as they are kept in the vessels they do not seem to change more rapidly than the corpuscles, as Osler has found them unaltered in the pial vessels of man some hours after death, and well preserved plaques may be found enclosed in fibrin taken from the body some time after death

What is the origin of the plaque? More than half a dozen answers have been given to this question, and experimental evidence has been adduced in support of each answer So long as the red and white corpuscles were the only recognized histological elements of the blood it was most natural for any observer to connect the plaques and masses with one of these elements They have been variously regarded as hæmatoblasts, or young red corpuscles, as derived from the red corpuscles, as derived from the white corpuscles, as nuclei floating free in the blood, as fibrin, and finally as independent elements It seems scarcely worth the while to mention the evidence upon which these views have been founded Suffice it to say that the views are carefully examined by Kemp, and sufficient evidence brought against them (save those which claim that they are hæmatoblasts or independent elements) to render them most improbable That they are not due to changes produced in other elements after the blood is drawn is shown by pricking the finger through a drop of osmic acid, by which process all the elements of the blood are immediately set when they leave the vessel Furthermore, we could scarcely ask for more conclusive proof than that five competent observers—Bizzozero, Lavdovsky, Hlava, Schimmelbusch and Osler—have seen them circulating in the vessels of the mesentery, and in the uninjured vessels of the connective tissue of young rats Kemp's opinion is that there is no doubt that the plaques exist in the blood, and we have not yet sufficient evidence to believe them to be other than an independent morphological element—a view which is held by Max Schultze, Osler, Bizozzero, Laker, Lavdovsky, Halla and Schimmelbusch

Careful and painstaking enumerations as to the presence of the plaques in the various acute and chronic diseases have not been made, but Osler draws the following conclusions from numerous observations 1 The plaques are increased in all chronic wasting diseases—cachexiæ—with or without fever, debilitated persons, the subjects of phthisis, cancer or other chronic wasting diseases present a marked increase In phthisis the ratio of the plaques to the red corpuscles may be as high as 1 to 5 2 In acute sthenic fevers they are not increased in the early stages As the disease advances, however, and the patient becomes weaker and more debilitated the increase is marked as a rule This is especially well seen in typhoid fever, in which during the first week the number of plaques may not rise above normal, while in the third and fourth weeks there is usually a large increase 3 In the so-called blood diseases the number of the plaques is variable For example, many observers have noticed large numbers in certain cases of leukæmia, but in other cases the increase is not apparent, and the same is true of lymphatic anæmia In some cases of Hodgkin's disease Dr Osler has seen the plaques in very large numbers, they may be scanty in profound anæmia, and in cases of pernicious anæmia the clusters of plaques may be almost absent, or much more scanty than in health

It must be acknowledged that the theory of Hayem, that the plaques are hæmatoblasts, is strongly supported He believes that the red discs are nucleated, and in an article in the *Archives de Physiologie* three years ago he asserted with confidence that the plaques are nucleated If, as Hayem asserts, the plaques are biconcova, this is another point of resemblance Laker agrees with Hayem on this point, but Bizzozero and Schimmelbush assert that they only become biconcova when drawn into a salt solution or Hayem's fluid Kemp, however, asserts that in addition to seeing them on edge and making out their characteristic dumb-bell shape, he has succeeded several times in seeing them roll over and over in a very slow current, so that at least in *osmic acid* and Hayem's solution he was able to convince himself beyond all question of their biconcavity The biconcavity is also shown in a photograph made from a specimen stained with Bismarck brown Afanasef regards Hayem's "nucleus" as only a precipitation of granules in the centre of the plaque, and Schimmelbusch takes a similar ground Kemp has failed to see anything which he regards as a nucleus, and thinks that the concavity seen when examining full on the surface may be very probably mistaken for a nucleus As in the case of the red corpuscles, the question of a cell membrane may be raised in regard to the plaques

Still another point of resemblance between the red corpuscles and plaques is that, under certain circumstances the latter will shrivel and become crenate, and Kemp says that it is quite a usual thing to see both plaques and red corpuscles caught at one end and drawn out by a current so as to present a long, pear shaped or even threadlike appearance According to Hayem, again, the plaques contain hæmoglobin, a view which is supported by Mayet and Laptschinsky, the latter having described corpuscles about one third the size of the red corpuscles, which are sometimes more strongly colored than usual, and sometimes colorless Riess, Bizzozero, Laker, Hlava, Halla and Schimmelbusch take the view that the plaques are without color, and Kemp has tried in vain to find hæmoglobin in them, even with the double staining fluid of carmine and indigo carmine, which is claimed to stain green any cell containing hæmoglobin Another point of relation between the plaques and red corpuscles, pointed out by Hayem, Bizzozero and Lavdovsky, is that in different animals the size of the plaques always varies in the same ratio as that of the red corpuscles To this point Kemp adds that in trying to get a preparation from which to make a photograph of the plaques, he tried ten different staining fluids on the blood after hardening in osmic acid, and *in every case* the plaques and red discs stained proportionately

Hayem further supports his hæmatoblast theory by the assertion that in pathological conditions of the system where "new blood" is demanded, we may always find the plaques in increased numbers—which fact had already been stated by Reiss But there is an objection to this assertion which is so great as almost to necessitate a Scotch verdict Kemp says "The sources of error in all numerical determinations of the plaques are very great, on account of the tendency which these elements have to adhere to each other or to any foreign body with which they come in contact I was early led to see that for this reason numerical determinations, where the blood had to be measured, were practically of little value The same point has been made by Schimmelbusch, who, in addition to the results of his own observations, has shown that enormous variations exist in the results of the same observer, while different observers have shown diametrically opposite results, in determining the number of plaques in certain pathological conditions I think the only way to obtain a reliable numerical determination of the plaques would be to prick the skin through a drop of osmic acid, examine a thin layer of this mixture, and count the relative number of plaques and red corpuscles A separate determination would then have to be made by the usual methods for the red corpuscles, from which the number of plaques could be calculated Even this method would not be free from error, for Hayem has shown that enough plaques adhere to the edges of the wound to make an appreciable difference in the extravasated blood Probably the most suggestive observations in support of the hæmatoblast theory were made by Hayem, who has found the plaques in the vaso formative cells of the mesentery of newly-born kittens, where the young red blood corpuscles are in process of development, while both Hayem and Pouchet have described intermediate stages between the plaques and the red corpuscles[1] We cannot regard the hæmatoblast theory as proved, but we must acknowledge that the relationships between the plaques and the red corpuscles are most striking, and it seems as though this is the most plausible explanation offered "

We have now come to the question as to the relation of the plaques to coagulation, which will be discussed in the next issue of THE JOURNAL

THE AMERICAN MEDICAL ASSOCIATION

The *Medical Record*, of New York, and a few other journals of less note have been indulging in expressions calculated to create the impression that the recent meeting of the Association was less representative of the whole profession than most of its predecessors, and that the action of its Judicial Council in reference to the admission of the delegates from the Philadelphia County Medical Society had started a serious split in the membership of the Association To the latter accusation the *Medical and Surgical Reporter*, of Philadelphia, of May 22, replies so directly and truthfully that we quote from it as follows

" It is hardly fair to speak of a split when only a few fibres are carried away, it would be more correct to say a shave or a scrape The main body of the American Medical Association is to day more united than it ever was, and it has lost the allegiance only of those who 'got mad' because they could not control We cannot help but see that the action of the Judicial Council was eminently proper in the case of the alleged delegation from the Philadelphia County Medical Society There were two sets of delegates before them, one set had been regularly and legally nominated, but they were not elected, the other set had been elected, but, and this is a big BUT, they had not been legally nominated, and as such nomination is, according to the constitution and by-laws of the Society, a *sine qua non* of a legal election, every unbiased mind must hold that they were not legally elected Hence, the clear position was that the Philadelphia County Medical Society had no legally accredited delegates, and the Society was not entitled to recognition "

The pretense that the recent meeting at St Louis was in any sense more geographical or less generally representative than in former years is very easily disproved by reference to the facts Probably no three meetings could be chosen from the whole history of the Association affording a fairer basis for comparison than those held in New York, 1880, Washington, 1884, and St Louis, 1886 The first was in the great metropolis of the Atlantic States, immediately surrounded by the greatest density of population and the most complete social organization of the profession, the second in the capital of the country, with more local attractions than any other city, and the third in a great city in the central part of the Mississippi Valley The number of members attending each of these meetings was between 1,000 and 1,200, embracing delegates from almost every State and Territory in the Union

The six States that furnished the largest number of members in the meeting at New York in 1880, were New York, Pennsylvania, Massachusetts, New Jersey, Michigan and Connecticut, New York alone furnishing 319, or very nearly one third of the whole number present

The six States having the highest number of members in the meeting at Washington, 1884, were Pennsylvania, Ohio, New York, Indiana, Illinois, and Iowa, Pennsylvania sending the highest number, it being 219

The six States having the highest number of members in the meeting in St Louis in 1886, were Missouri, Illinois, Iowa, Indiana, Pennsylvania, and Ohio, Missouri furnishing 252, or less than one-quarter of the whole number in attendance The only States not represented in the meeting at St Louis were New Hampshire in the northeast, Delaware in the middle Atlantic region, Alabama in the south or Gulf region, and Nevada and Oregon in the extreme west These facts show the entire fallacy of claiming that the recent meeting was less representative of the profession of the whole country than those held at any former period If such a claim could be made in reference to either of the three meetings we have named, it would be the one held in New York in 1880, where a much larger proportion of members belonged to the State in which the meeting was held, than in either of the others Again, in 1880 the regular paying membership of the Association was less than 2,000, while it is now double that number, and is composed of representatives from the State, County and other local medical societies in every State, aggregating between 30,000 and 40,000 of the most active, enterprising members of the profession of the United States These facts do not afford much support to the idea that the Association is about to crumble to pieces, or be speedily succeeded by a "Congress of American Specialists" constructed from a union or confederation of half a dozen American specialist organizations whose entire aggregate membership will hardly number five hundred

---

[1] The observation of Hlava may also be taken in support of Hayem and Pouchet the colored bodies which he distinguishes from the plaques being plaques containing hæmoglobin and on the way to form red corpuscles

MAY INJURIES BE EXHIBITED TO JURIES?

The practice of exhibiting injured or deformed limbs to juries in malpractice suits by a plaintiff, or by the defendant in suits for medical fees for services, has long been regarded as a fruitful source of erroneous verdicts, and an act of manifest unfairness to the physician or surgeon To allow a jury of twelve, or twelve hundred, uneducated (medically) and unskilled men to say in how far the surgeon is responsible for a given deformity is as manifestly unfair as to allow the same jury to dictate to the attending physician as to what remedies should be used in a case of diabetes or typhoid fever, whether the forceps should be used in a case of shoulder presentation, or whether any, and what, antiseptic agent should be used in a case of ovariotomy

The case of Carstens *vs* Hauselman, decided by the Supreme Court of Michigan, on May 12, has some points of interest to surgeons as regards this question Action was brought by the surgeon for services rendered in the case and treatment of a fracture of the leg Among other points of defense one was raised of improper treatment The lower Court gave verdict and judgment for the plaintiff Error was assigned because the Court below had refused to allow the defendant to exhibit her injured leg to the jury Upon error the Supreme Court, *per* Campbell, J, used the following language

"The injury occurred several years before, and there was testimony concerning the correctness of the treatment, which necessarily involved medical questions which no jury could be supposed to fully comprehend It is not competent to allow juries to determine for themselves whether a physician's course has been proper or improper in the treatment of a fractured limb, and the Court very properly refused to permit them to inspect it for that purpose No inspection after an injury is healed, apart from some knowledge of the character of the injury and the methods of treatment, could enable even a medical expert to decide upon the merits or demerits of the attending surgeon A jury's guessing from such an inspection would be of no value whatever, and any needless exposure would have been, as the Court below properly held, improper, if not indecent"

SOCIETY PROCEEDINGS

AMERICAN LARYNGOLOGICAL ASSOCIATION

Eighth Annual Meeting, held in the Hall of the College of Physicians, of Philadelphia, May 27, 28 and 29, 1886

THE PRESIDENT, DR HARRISON ALLEN, of Philadelphia, delivered the *Annual Address*.

Following the Presidential address, a letter from the Secretary of the Philadelphia College of Physicians, tendering to the Association the use of the hall and the hospitalities of the college, was read

DR HARRISON ALLEN then read a paper entitled

TWO CASES OF ADENOID DISEASE OF THE ROOF OF THE PHARYNX WHICH EXHIBITED UNUSUAL FEATURES

The result of operations for the removal of adenoid tissue from the pharynx is usually so excellent that the necessity for a repetition of the operation is said to be seldom met with The following cases were related as presenting certain points of interest

Case I—A B, age 5 years, much emaciated, without appetite, suffering with frequent attacks of indigestion, was sent to him in the latter part of January, 1884 Examination showed the roof of the mouth to be elevated, but the slightest attempt to depress the tongue was followed by gagging The nostrils were filled with a mucoid discharge, and a small quantity of a similar discharge was seen in the fauces after gagging During the day, the respiration was not exceedingly difficult, but at night it was greatly impeded Almost directly after the child fell asleep, respiration became labored After three or four inhalations, breathing would cease, the child would open its mouth and make strenuous efforts to inspire The child would then awaken and a forced inspiration ensue It would then quickly fall asleep and the same phenomena would recur, and in this manner the entire night would be passed To these were occasionally added fits of crying and emesis During an attack of whooping-cough the symptoms became much exaggerated, and were associated with irregular action of the heart

Hypertrophy of the adenoid tissue of the pharynx with unusual reflex phenomena was diagnosed On January 29, with the patient under ether, the operation for the removal of this tissue was performed An attempt was made to break down this tissue with the finger, but the presence of the finger arrested respiration Efforts were then made to rasp the growth away with an instrument passed through the nose, but in a short time the patient showed symptoms of depression and the operation was suspended The pharynx was next seared with the hot wire During the succeeding five weeks, applications of iodine and glycerine were made, but there was no evident improvement in the breathing at night The patient was again etherized and the pharynx shown to be empty Suspecting that the tonsils might be the cause of the difficulty, a portion of each was excised Still no improvement followed A third attempt to detect the cause of the difficulty was made, and it was determined positively that the nostrils were patulous A careful examination showed that during sleep the tongue fell backwards, and that this was the essential condition It was then directed that when these attacks came on the boy should be held with the face downwards The moment this position was assumed the child passed into a profound slumber It was then so arranged that during the entire night the patient should be watched, so that the tongue should not have an opportunity of falling back This watching has been continued up to the present time The boy prefers to lie upon his side, but when the attacks come on, turns on his face without awakening He is now a strong and healthy boy

Case 2 —A girl 6 years of age The child was cyanotic at birth The extremities were cold and of a bluish color, but no difficulty with the heart could be detected The irritability of the pharynx was excessive The patient had been twice operated on by other surgeons, and it was inferred that an attempt had been made to remove morbid tissue The patient was etherized with great care and the entire nasal pharynx found to be much smaller than normal, and its roof was highly arched in form The posterior slope of the roof was the seat of adenoid growths Some were removed by the galvano cautery passed through the nose Some of the nodules at the lower border of the pharynx were removed with the scissors

The patient was improved, and two weeks later she was again etherized, and it was ascertained that all the nodules had been removed, but that the membrane at the roof of the mouth was exceedingly thick and tended to obstruct the passage of air This was subjected to cauterization in several places No further efforts were made to reduce the size of the membrane by operation, and the patient was treated as a case of perverted nutrition of the osseous system Iodine and glycerine were applied locally Under this treatment gradual improvement in the nasal respiration took place, and at the present time the child appeared to be perfectly recovered

Dr **Franklin H Hooper**, of Boston, had had only one case in which any accident followed the operation for removal of adenoid tissue This was in the case of a little girl 8 years of age, of a neurotic temperament and very precocious Nasal respiration had been obstructed and articulation had been defective since the age of 3 years Hearing was also impaired A large quantity of adenoid tissue was demonstrated, the removal of this was followed by great improvement in breathing and articulation The breathing did not improve at once, but the use of the Politzer bag resulted in marked improvement This had been previously tried without effect From this time she began to grow nervous. Eight days after the restoration of hearing, she complained that she could not keep still In a short time the symptoms of chorea developed and gradually increased in intensity The speech became affected, and for over a month she was unable to speak The chorea assumed an exceedingly severe form She was unable to sleep Various remedies were tried without benefit Finally urethran was suggested The use of this drug was followed by quiet sleep Since this time the child has continued to improve and the chorea has now entirely disappeared

Dr **E L Shurly**, of Detroit Where the galvano-cautery is used, it has been said that there is considerable danger of the ether taking fire when this is used as the anæsthetic He always uses chloroform under such circumstances

Dr **S W Langmaid**, of Detroit In one case coming under his observation there was a period of thirty-five seconds between the respirations In that case, the difficulty was relieved by the patient getting on his hands and knees There must have been either a falling back of the tongue or some inhibitory action of the respiratory centre The removal of the growth did away with the interruption of respiration. He was not aware that much has been said in regard to this interruption of respiration

Dr **Carl Seiler**, of Philadelphia One point with reference to adenoid growths in the roof of the pharynx is the effect upon singing voice Dr Bosworth, of New York, called his attention to the fact that different lines might be drawn on the roof of the pharynx corresponding to different notes of the scale A swelling in a particular situation will interfere with the production of a certain note A case illustrating this was seen by him a short time ago A young lady could not reach the upper notes of the scale He found a small adenoid growth which he removed with his finger She is now able to reach every note with the greatest ease

Dr **Harrison Allen** said that Dr Hooper's case is an evidence of the way in which the adenoid growths may affect the entire system His case is noteworthy in view of the fact that the phenomena appeared after the removal of the growth With regard to the use of ether, he has not been unaware of the danger, but by fanning the patient for a moment before using the cautery the vapor of the ether is removed, and he has experienced no difficulty He has been unable to find on record a case similar to the first one narrated Dr Langmaid's case agrees with it in that the difficulty was relieved by change of position In a case similar to the one related by Dr Seiler, he removed a small mass of adenoid tissue and although the patient was able to reach the higher notes, she complained of the sensation of a large cavity in the situation from which the mass was removed

Dr **J Solis Cohen** then presented for **Professor**

RAMON DE LA SOTA Y LASTRA, of Seville, Spain, a paper on

LUPUS OF THE THROAT

The author referred to the difficulty of diagnosis which was experienced in many of these cases, and in illustration related the following In 1884, he was consulted by a physician on account of an affection of the throat The patient was much emaciated, reduced in strength and with a clay-colored complexion He was 60 years of age The trouble with the throat had commenced one year previously He was unable to take anything but milk and broth The throat was covered with psoriatic scales The pharynx was lumpy and of a wine red color The right tonsil was the seat of an ulceration extending from the pyriform fossa below to the middle of the uvula and involving half that structure Its borders were red and swollen, its surface lumpy and irregular, and of a hard and elastic consistence Some pain was produced by palpation, but no bleeding There was no trouble while talking or on coughing Liquids were swallowed without difficulty Breathing was accomplished with perfect freedom The submaxillary glands were swollen The patient had suffered from rheumatism, but no history of syphilis could be obtained Taking into consideration the history of the case and the age of the patient, he considered it an ulcerated epithelioma This was concurred in by the patient's physicians, nevertheless, mistrusting the testimony obtained, antisyphilitic medication with mercurials was tried This occasioned such bad results that it was necessary to suspend it He was then placed upon the use of iron and bitter tonics and such diet as he could take The specific treatment was subsequently resumed, but the local lesion assumed such a bad aspect that it became necessary to give up the treatment From the fact that the ulceration was unattended by pain he began to have some doubts of its epitheliomatous nature He next prescribed sodium argenite in ascending doses, with a gargle of resorcin and the use of iodoform on the ulcerated surface after it was washed with a solution of borax For a month the ulceration continued to extend, and when he had lost all hope, it stopped its progress and became covered with healthy granulations Cicatrization went on and was complete in three months The scar is irregular, elevated and depressed, hard and soft, the posterior portion being adherent to the pharyngeal wall The lingual psoriasis continued Restoration to health has taken place It is now eighteen months since the ulcer healed With this result, he concluded that the case was one of lupus

His experience with this and other cases of lupus of the throat has led him to conclude that the disease may make its appearance at any period of life He has seen it more frequently in adults than in children, and more frequently in men than in women He has been unable to obtain any information in regard to inheritance He has not found that hard drinkers or smokers were more liable to suffer, nor has he found that great exertion of the voice or exposure to irritating substances, the application of the cautery or other agents, had any influence in its production

He has never had an opportunity of observing the initial manifestations of the disease, but he has been able to detect the involvement of sound tissues later in the disease Sometimes the mucous membrane assumes a purple color, and swells up and becomes granulated Then one or two nodules may develop and may attain the size of a pea Sometimes they become prominent without any alteration in the appearance of the mucous membrane They may remain superficial, or they may attack the mucous tissue and also the submucous tissue Their form is rounded and their surface is smooth These nodules are distinguished by their rosy red color from leprous tumors Unlike carcinoma, the tumors are usually quite distinct On pressure they present an elastic resistance This is greater than the hardness of inflammation, but less than that of epithelioma The parts on which the tumor develops become rigid and the natural movement is diminished or lost Contrary to carcinoma, which usually produces sharp lancinating pain, and to leprosy, which is generally accompanied with anæsthesia, there is in lupus no alteration of the sensitiveness of the part After a shorter or longer period, the tubercle softens and becomes ulcerated The ulceration assumes two forms In some cases the tumor becomes excavated to a considerable depth, while in others it is more superficial These ulcers do not bleed on pressure The cure is difficult and attended with the formation of scabs In some cases, these ulcers develop in a slow way, while in others they start with astonishing rapidity They may develop within a few days, or they may remain quiescent for months or years and then take on destructive action The healing of the ulcer is followed by the formation of irregular scars, raised in some places, depressed in others, red in the former, white in the latter Adhesions to different parts take place Cicatrization takes place slowly and is easily destroyed Infiltration always remains

All agree that the cure of lupus of the throat is more difficult than the same process in the skin In the cases which he has seen, the same treatment which he has employed in external lupus he has found of service in lupus of the throat He does not despise internal treatment, but uses such remedies as are indicated by the general condition of the patient This has an important influence upon the result of topical treatment If the lupus is not ulcerated he applies caustic substances Until a few months ago he used tincture of iodine He has, however, found good effects from the use of lactic acid He has used it in cases of lupus of the cheek and gums, and also of the larynx He has met with no inconvenience from its use except the pain, which varies in different cases If the lupus is ulcerated, he sometimes uses the lactic acid, more frequently he employs a wash of borax and covers the ulcer with powder of iodoform He always prescribes a gargle of a 1 per cent solution of resorcin Patients thus treated have always recovered after a greater or less time In some cases the cure has probably been realized in the natural course of the disease rather than as a result of the therapeutic measures

DR JOSEPH LEIDY, of Philadelphia, on invitation, gave

SOME POINTS CONNECTED WITH THE LARYNX AND ITS INTRINSIC MUSCLES

The aperture of the larynx which communicates with the pharynx is a large oblique opening, bounded above by the summit of the epiglottis and laterally by the aryteno epiglottidean folds The lower portion is formed by the notch of the arytenoid cartilages Laterally on each side, two eminences are quite prominent in the fresh larynx, an upper pair and a lower pair The lower pair is produced by the carniculæ of the larynx which terminate the summits of the arytenoid cartilages The text-books state that immediately above these there is another pair of cartilages These are the cartilages of Wrisberg The writer has rarely found these cartilages decidedly developed in the white subject Where a prominence exists in the white subject, it is caused by a group of glands Often in these a little cartilage may be found In the negro, the cartilages of Wrisberg are conspicuously developed This point has also been referred to by European writers

The next point refers to the vocal cords, as they are usually designated Between these cords is the fissure of the glottis While physiologically it is correct to speak of the vocal cords, yet anatomically it is not correct to speak of vocal cords These bands are usually spoken of as the inferior thyro arytenoid ligaments There is another ligament extending between the thyroid and cricoid cartilage in front and extending back to the base of the arytenoid cartilages This is the middle crico thyroid ligament, and is connected with the upper border of the vocal membranes This connection is very important If the cricoid cartilage is broken or crushed it must influence the action of the so called vocal cords, for the vocal membranes are connected quite as much at the lower border to the cricoid cartilage as they are at the upper border to the thyroid cartilage

The vocal cords are influenced altogether by the muscles attached to the arytenoid cartilages These are supplied by the inferior laryngeal nerve Another muscle which may influence the movements of the vocal membranes is the crico thyroid This is supplied by a separate nerve, the superior laryngeal Why this muscle should be supplied by a different nerve has not been satisfactorily explained The muscles which operate the arytenoid cartilage are the posterior crico arytenoid, the lateral crico arytenoid and the arytenoid muscle These muscles are sufficient to produce all the movements of the vocal membranes Other muscles, that is to say the aryteno-epiglottidean and the thyro epiglottidean muscles, have been described, but in his experience, the development of these muscles is exceedingly uncertain

Another point is in regard to the connection of the muscles In looking at the origin of muscles we usually consider that they are attached to the surface over which they lie for instance, we look upon the crico thyroid as arising from the posterior lateral surface of the arytenoid cartilage If the muscle is cut across, we find that it arises only at the most remote portion of this surface Between this and its insertion there is a smooth surface

DR J SOLIS COHEN had noticed that the cuneiform cartilages are best developed in those who have the best control over their voices He had regarded them as supports for the ventricular bands The connection of the crico-thyroid membrane with the vocal cords is very interesting There are two supposed paralyses of the larynx which present exactly the same picture One is the paralysis of the thyro-arytenoid muscle, giving the Indian-bow paralysis of the Germans The other is paralysis of the crico-thyroid muscle, giving exactly the same appearance The way to distinguish these paralyses is by placing the finger on the crico thyroid membrane If the membrane vibrates when the patient speaks, the crico thyroid muscle is not paralyzed With reference to the action of the crico-thyroid muscle in phonation, the thyroid cartilage is fixed, and when the attempt to sound high notes is made the cricoid cartilage is drawn up by this muscle The posterior crico thyroid muscle, from its attachment, not only separates the vocal bands, but when they are made tense by other muscles, its action is to increase their tension

DR JOSEPH LEIDY had never been able to see that the crico thyroid muscle was related to the other muscles in the production of sound He was glad to hear the explanation which had been given, which appeared to be a satisfactory one

DR J H MACKENZIE, of Baltimore, exhibited

AN INSTRUMENT FOR FRACTURING THE NASAL SEPTUM,

the chief difference from other instruments of the same class being the great leverage which was obtained

DR CARL SEILER exhibited

AN APPARATUS FOR MAKING SECTIONS OF FROZEN HEADS

Sections made with the machine were exhibited

DR C E SAJOUS, of Philadelphia, presented

A GALVANO CAUTERY HANDLE,

in which the wires were attached in the middle of the instrument, and both the wires and the electrodes were secured without the use of screws The connections within the handle were made of copper and heavier than usual, in order to diminish the resistance

THE PRESIDENT announced the following as the *Nominating Committee* Dr T R French, of Brooklyn, Dr F I Knight, of Boston, and Dr G W Major, of Montreal

AFTERNOON SESSION

DR F H HOOPER, of Boston, read a paper concerning

THE POSITIONS OF PARALYZED VOCAL BANDS

The paper was in part based on experimental work done in the physiological laboratory of the Harvard Medical School, and in part theoretical Specimens and drawings illustrating certain points were shown The reader stated that it was his purpose to inquire into certain influences which might combine to determine the position of paralyzed vocal bands, and to ask whether we are always justified in assuming that a given position of immobile vocal band was indicative of the arrested function of this or that muscle of the intrinsic laryngeal groups The speaker thought that a vocal band might assume different positions in cases of complete paralysis of the recurrent nerve, and he passed in review certain anatomical factors and physical causes which he thought might contribute towards producing the position which might happen to be present when seen reflected in the laryngeal mirror

Dr Hooper concluded by saying that in his judgment the larynx is such a complicated organ anatomically, it is subject to such changes at different stages of life, its shape is so different in different individuals, its nerve supply is so great, the arrangement of its muscles so liable to anomalies, that as surely as one attempts to formulate theories on the positions alone of paralyzed vocal bands—positions which may be controlled by intrinsic muscles of the larynx that are not paralyzed, as well as by those that are—just so surely will one be led unconsciously into erroneous mental inferences

Dr J Solis Cohen read a paper which related the further

HISTORY OF A CASE OF PARALYSIS OF THE POSTERIOR CRICO ARYTENOID MUSCLES,

presented at the first meeting of the Association in 1879, with a report of the autopsy and the exhibition of a specimen

The history of the case was briefly given as follows A man aged 48 years was brought to him with a history that for two years he had suffered from occasional spasm of the larynx so that, on at least two occasions, he had fallen unconscious in the street When a boy he had suppurative inflammation of the left ear, and ever since then the introduction of the finger into the ear would produce spasm of the glottis On examination with a mirror, the doctor found what he then considered to be the picture of paralysis of the left posterior crico arytenoid muscle The examination produced spasm on the other side The patient was directed to carry with him nitrite of amyle to be used when the attacks came on This he did for awhile with good results He subsequently returned with the statement that the day before he had a severe spasm from tickling in the ear While illustrating this he had a violent attack in the office, requiring the use of chloroform to relieve it The next day tracheotomy was performed No other lesion was found at that time The spasms were still produced by irritation of the ear Five or six weeks later, he began to have paralysis of the right vocal band The picture then became extreme, and after this time he never saw the larynx in any other position The man gradually became blind, and developed other symptoms of locomotor ataxia During the four years preceding his death Dr Cohen did not see him, but during this time he continued to wear the tube He was able to speak well without occluding the tube With the condition of conductor paralysis, the doctor thought there was a condition of spasm of the adductors

At the autopsy the left recurrent nerve seemed natural, although it will be remembered that the left cord was the first affected The right recurrent showed a distinct line of demarcation between the healthy and unhealthy fibres Instead of the right muscle being atrophied, it was the left muscle which had undergone wasting

Dr Frank Donaldson, Jr, of Baltimore, read a paper on

THE FUNCTIONS OF THE RECURRENT LARYNGEAL NERVE, FROM AN EXPERIMENTAL STUDY IN THE JOHNS HOPKINS UNIVERSITY

Reference was made to the fact that all the muscles, with the exception of the crico thyroid, are supplied by the recurrent laryngeal nerve The nerve, therefore, contains fibres controlling both phonation and respiration, acting both upon the abductor and upon the adductor muscles He then referred to the experiments performed by Dr Hooper, of Boston, the results of which had been presented at the last meeting of the Association Dr Hooper had found that the constrictors cease to act when consciousness was suspended by the action of ether, and that abduction with dilatation of glottis was obtained by stimulating the recurrent laryngeal nerve when consciousness was suspended. Dr Donaldson's experiments were made to test the correctness of these results In five experiments under states of deep narcosis, slight narcosis and almost complete consciousness, he invariably got adduction of the vocal bands under the application of stimuli with the induction coil at ten In one case in which consciousness had been suspended, under slight stimulation, abduction was produced, while under strong stimulation, adduction was obtained It was then found that abduction was always produced when weak currents were employed, but adduction was obtained when stronger stimuli were used He therefore concluded that the constrictors did not cease to act during profound narcosis or in suspensions of consciousness from any cause, and that abduction is not always obtained when consciousness is suspended It is with weak currents that abduction is produced, but as the stimulation is increased adduction takes place

Dr F I Knight, of Boston, said we must bear in mind that these experiments have been performed upon lower animals, and not upon man, and even if a certain unanimity of opinion is reached, we shall have to adapt these results to the case of man by clinical and pathological observation It does not follow that the same mechanism takes place in the opening and closure of the glottis in man as in the lower animals In regard to the abductor paralysis, he thought the whole question should be decided upon the position of the vocal process without any reference to the cord If the vocal process is found in the median line, it is fair to assume that for some reason the function of the abductor muscle has been abolished A good deal of difficulty has been experienced by observers in determining when the vocal process is in the median line To him the crucial test is by phonation If you get a vertical glottis on phonation, without any movement on suspected cord, you have a sure case

Dr S Solis Cohen, of Philadelphia, said it was important to distinguish between the automatic (respiration), the reflex (cough), and the psychic (phonation) functions of the larynx A well known physiological law is that the resistance which a nerve offers to the transmission of nervous force is inversely as the use made of the muscle which it ennervates No muscle is used more than the abductors of the larynx The resistance of their nerves would *a priori*, then, be supposed to be the least, and Dr Donaldson's experiments show that they respond to a weak stimulus The phonatory muscles are not so frequently used, the resistance of their nerves, though low, is higher than that of the respiratory fibres The respiratory impulses traverse the nerve continuously, and additional stimulation, whether reflex (irritation of the superior laryngeal), producing cough, or psychic, for purposes of phonation, produces adduction of the vocal bands There is a local centre in the medulla, the vago accessorius, nucleus for all the laryngeal muscles Moderate stimulus from the respiratory centres opens the glottis for respiration, increased stimulus opens it farther, a greater increase, say by reflex irritation, closes it for cough An impulse from the cerebral cortex, the centre of voluntary motion, closes it for speech

(*To be concluded*)

OBSTETRICAL SOCIETY OF PHILADELPHIA

Special Meeting, April 15, 1886

The President, B F Baer, M D, in the Chair

W H H Githens, Secretary

(*Continued from page 642*)

Dr H A Kelly exhibited the

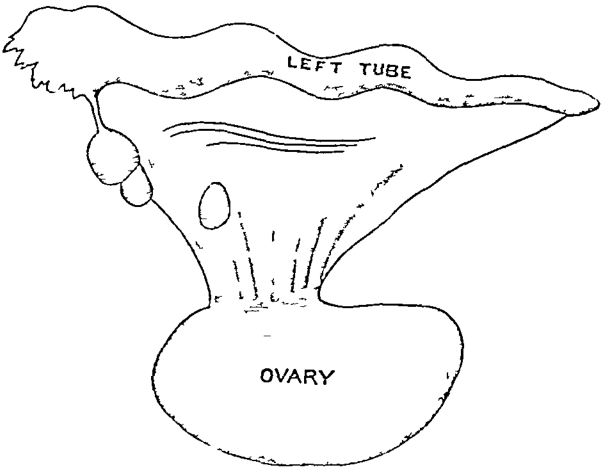
OVARIES AND TUBES FROM A CASE OF CHRONIC OVARITIS, SALPINGITIS AND PELVIC PERITONITIS

Also, the right ovary and tube from a case of

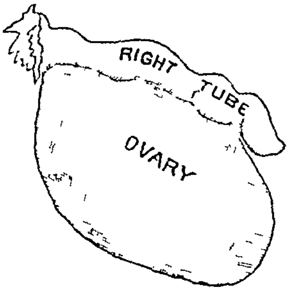
CELLULITIC CONTRACTION OF RIGHT BROAD LIGAMENT WITH DISAPPEARANCE OF THE MESO SALPINX AND COHERENCE OF OVARY AND TUBE

of which the following is the history H P, married, age 32, four-parous, has always been irregular in her menstrual function, the flow generally appearing from ten days to two weeks later than expected, and being scant Her last confinement was eleven months ago Labor was slow, but no instruments were used The child died in two months Ten days after delivery she had an attack of "typhoid fever," (*sic*) and since then she has never been well During the fever, which lasted many weeks, she had constant severe pain in the right ovarian region, and had repeated chills and flushes of heat She has at present severe pain in the right ovarian region, and constant headache, is unable to work or exert herself in any way She has not now menstruated for two months, although regular before She has a leucorrhœa, which is intermittent in character Bimanual examination reveals an enlargement on the right side extending from the middle of the hypogastrium two and a half inches to the right, downwards to the pubis and upwards almost half way to the umbilicus It is most prominent above, very tender and semi-fluctuant, every movement of the mass carries the cervix with it The cervix points to the left and the right fornix is very shallow The mass has no firm attachment to the pelvis but is easily movable It seems to spring from the right cornu-uteri February Pain and sensitiveness great The right fornix obliterated and the uterus drawn bodily to the right side by a shrinkage in the mass There is a mass which is as hard as a bone on the left side, like a finger, high up behind the vagina, pointing down in its axis March After faithful and prolonged treatment consisting for the most part of rest with counter-irritation in the vagina and on the abdomen, and hot douche and glycerine plug, I made an explorating incision, at my private hospital, on March 27, in the presence of Drs R P Harris, Chas Herman Thomas, P G Clark, Marie B Werner, Boyle of Kansas, Bull of Missouri, Baldy and I W Mecaskey to whose courtesy I was indebted for the case, and assisted by Dr Jas Hoffman The right cornu uteri was found elevated and matted with a mass of mesentery in which it was completely encapsulated This was slowly detached layer by layer, and the vermiform appendix separated for an extent of two inches The tip of the appendix gave rise to troublesome bleeding finally checked by the cautery An enlarged ovary with a withered tube intimately adherent to its periphery was then raised with great difficulty, a black walled cyst, about one and a half centimetres in diameter, burst and a quantity of grumous matter escaped into the peritoneum The ovary and tube were removed with great difficulty and a part of the hilum was left in the grasp of the ligature This was carefully burned

The illustration gives a correct indication of the structural changes in the right ovary, tube and ligament The left ovary and tube, which were free and sound, I also removed as I was anxious to stop all determination of blood to the uterus The figure shows well the contrast between the two The operation was protracted, lasting one and three quarter



hours The patient died on the seventh day of one of those remarkable insidious attacks of peritonitis She appeared to be doing well until the seventh day, when I found her with a wild frightened look and a pulse of 200 She had no pain at all I broke up the adhesions in the lower part of the wound, which looked well, but I could not reach anything within the wound, and she died within two hours Dr R P Harris was present at the autopsy a few hours later The recti had a deep red unhealthy appearance, and a few spots of pus lay in the floor of the wound, opened down to the peritoneum The peritoneum was firmly glued together and my effort in the morning had not penetrated it, for as soon as the adhesions loosened a large quantity, at least a pint, of brown pus rushed out, and I found the whole posterior part of the pelvis shut off from the general peritoneum by firm agglutination of the viscera above and full of the same material My chief anxiety was to find the vermiform appendix and see if I could blame it for any share in the result It was found with difficulty and was covered with a thick finger of lymph The sepsis came from the matter which escaped from the ovary I say this for I have never yet seen sepsis in any clean case Then in looking back for unnoticed symptoms for future guidance in such cases, several points deserved closer attention than they received *First* She complained more than usual of pain in the first three days *Second* The pulse remained about 112 instead of dropping below 100, as usual *Third* She wandered a little occasionally, insisting once that she saw a man in the room She was more nervous about herself than any of my other cases had ever been, often insisting on sending for me in the night These signs, taken together, are certainly significant in the absence of pulse and temperature indications



Dr R P Harris saw both the patients from whom these specimens were removed The ovary in the latter case presented a very peculiar appearance, it was cartilagenous, with small cysts The material escaping from these cysts caused septic peritonitis The first patient was wonderfully changed by the operation She was free from pain for the first time in twenty years, and could scarcely be kept quiet, so great was her joy at her release

Dr Howard A Kelly reported a

UNIQUE CASE OF EXTRA-UTERINE PREGNANCY, COMPLETE REMOVAL OF THE SAC AND CONTENTS

Mrs J B, 22 years of age, married three years, of medium size, well built, but rather pale and worn looking, has been twice pregnant, the first being a premature still-birth, the second a cross-birth, necessitating turning by the feet Since the last pregnancy she menstruated seven times In July she menstruated the last time for four months, when a flow came on (in November), at which time she passed a piece of flesh called by a doctor a "false conception" Previously to this she had noticed a swelling in the right ovarian region which gave her some pain This pain was constant until the flow came on, when it was relieved In December, three weeks after this flow, she thought she felt life and believed she was pregnant She then had colastrum and a dull pain in the breast, and the nipples were coated with a waxy secretion Examination A tense, smooth, elongate, ovoid sac lay in front of the uterus (which reclined in the hollow of the sacrum), and rising out of the pelvis pointing over the pubis, reached half way up to the umbilicus as she reclined on her back The tumor was very tender on pressure and presented a remarkable smoothness and uniformity of its surface It had a tense fluctuant feeling, and was distinctly movable as distinct from but closely connected with the right side of the uterus She menstruated regularly in January, February and March, the flow being lighter in color and much more profuse, lasting two or three days longer than her normal menstruation On March 13 she was menstruating freely, and the notes state "the uterus lies, small in size, in the sacral hollow, and in raising the finger from the cervix to the anterior vaginal wall, an elongate, ovoid, tense cyst is felt on the right side, it is about 3½ inches long by 2½ wide The cyst lies in the plane of the superior strait The anterior extremity of the ovoid lies at the pubis, and its posterior, attached extremity at the right *cornu uteri* A well defined sulcus exists between the tumor and uterus, and the two are connected by a short but distinct pedicle The tumor is very smooth, and of a remarkable rubber ball elasticity It is movable over an excensus of one or two inches, but too tender to manipulate further" These notes were made a week before the operation, which was upon March 20 I then wrote to Dr R P Harris that I expected to operate upon an extra uterine cyst, and upon March 20, assisted by Dr Joseph Hoffman, and in the presence of Drs R P Harris, Chas H Thomas, Marie Werner, Wm Stuart, Baldy, Chas M Wilson, James Gibbs, R Keely, Paris G Clark, McConnell, and others, the sac and its contents were removed The belly walls were fat The incision was about three and a half inches in length, through the linea alba, beginning about one inch above the pubis The sac wobbled about so in the pelvis that it was hard to bring its globular form up under the line of incision It felt at first like an enlarged uterus, but the uterus lay retroposed, anteflexed, reclining in the sacral hollow The tumor was raised and brought out of the pelvis by passing two fingers in front of and under it, hooking it up and revolving it on the axis of its attachment at the broad ligament, it was then delivered at the linear incision by pressing the walls outward and towards the patient's back until it slipped out, it was then transfixed below its base and tied, and with the ovary and whole of the right fallopian tube, was removed intact The cyst was reddish blue in color, and developed in the free margin of the right fallopian tube, its longest diameter crossing the axis of the tube at right angles Pure water was used for the sponges, and the instruments were kept in a dry pan No antiseptic of any sort was employed Everything was thoroughly clean and prepared beforehand, and no antiseptic was needed The whole operation from beginning to complete closure lasted forty minutes Silkworm gut sutures, about four to the inch, were used to close the wound, and with a little iodoform powder and dry absorbent cotton the dressing was complete The sac was about three inches long by two and a half wide, smooth and slightly rugous in its long diameter Dr Charles Hermon Thomas incised it at its free extremity, cutting through the placenta into the amniotic sac, which did not contain a drop of fluid The hands and then the head of the brownish, exsanguine fœtus protruded, its cranial bones well developed There was not the slightest fetidity The whole fœtus was well formed and perfectly preserved It was a male, measuring 5¾ inches in length, the cord was five inches long, twisted from left to right The recovery was as rapid and perfect as after any simple abdominal operation An objection which naturally presents itself, and one which has been urged, is this Here was an extra-uterine cyst containing a mummifying fœtus in just the condition we try to obtain by faradic fœticide Why interfere with it at all? My reasons were several First, my patient was constantly suffering from a painful tumor Second, she had deteriorated greatly in health, and in place of her usual fresh and rosy complexion, was looking sallow and wan, and was very despondent Third, the facility of the operation was manifest, and my bimanual examination revealed all the peculiarities of the case before making the section Fourth, the very real danger of peritonitis and the possibility of the later discharge of the fœtal parts by protracted suppuration And further, I was acting in accordance with the practice of such eminent authorities as Lawson Tait and Olshausen, who counsel early interference in all pelvic tumors where the probabilities of success are good It must be remembered in any critique of the case, that it presents features utterly unlike any other abdominal pregnancy ever recorded as operated upon Dr Harris's remarks will show that the crisis is not always passed when the fœtus is killed by electricity

Dr R P Harris said the case reported by Dr Kelly had as clear a history of extra-uterine pregnancy as we ever find in the *very early period* of ectopic gestation, *when*, it cannot be claimed, that a positive diagnosis can be made We can, however, very closely approximate it, as was done prior to this operation The woman had been twice normally pregnant, she ceased to menstruate on July 16, 1885, and there was no recurrence until November 17, a period of four months She considered herself pregnant, and as the menstrual flow of November lasted a week, was excessive, and she passed, as she termed it, "two pieces of flesh," she thought she had aborted Having seen her in the operation, and upon several occasions since, I learned from her that her menstrual periods usually lasted about three or three and a half days, but had increased to a week or thereabouts, after the return in November

The development of the breasts, the presence of astrum in them, the discharge of the decidua, the detection of the spherical tumor connected to the right *cornu uteri*, the decrease of this in size after the decidual expulsion, and the prolongation of the menstrual periods, all pointed to the existence of a right fallopian pregnancy and a dead fœtus When the tumor was brought into view in the operation, it was seen to be of a reddish blue color, which is common to fœtal cysts, and about three inches in diameter When opened after removal, the placenta was found at the top, and the cyst empty of amniotic fluid, which had been removed by absorption The fœtus was a male, 5¾ inches in length, and to judge by its size, degree of cranial ossification, and mark of sex, it must have died near the end of the fourth month Such a fœtus, at the time of its death, must have occupied a cyst as large as a cocoanut The loss of fluid in the cyst made it sufficiently flaccid to admit of its being drawn upon so as to form a pedicle for transfixion and ligation Fortunately for the woman, the cyst retained its integrity, the fœtus perished, and there was no peritonitis to produce adhesions, the operation was therefore as simple as an easy ovariotomy, and no more dangerous

There can be no question in my mind that under all the peculiar circumstances of this case it was proper to remove the fœtal cyst for the purposes of relieving the pain felt in it, and of checking the menstrual loss The question might be asked, Why operate in such a case more than in one where fœtal death has been produced by the farradic current? I answer, that under the same peculiar sufferings and advantages the exsection might be called for The after history of the cases of faradic fœticide has yet to be written Thus far, there has been no death, immediate or remote, but there have been attacks of peritonitis, and there may be other troubles from the dead fœtus after a long period Very little has been recorded of the ill effects produced by ectopic fœtuses, which have died in the second, third and fourth months of tubal or abdominal gestation We know that a fœtus of the fourth month has been passed whole from the rectum, and that one still smaller has been vomited, but death has rarely taken place within an unruptured cyst, in the second, third or fourth months, and we therefore do not know by the past what may be likely to happen in some of the cases subjected to faradization Thus far the method has much to recommend it, by its safety of application, and by the present health of its subjects Fœtal death being followed by absorption of the amniotic fluid, there is no longer any danger of the cyst rupturing from tension, and the woman's life is saved

The first to destroy a fœtus by electro magnetism in the United States, was our fellow member, Dr Joshua G Allen, who has now operated three times with success, and all of the women are still living Case 1, 1869, and Case 2, 1870, were illegitimately impregnated, and both have since married Case 1 has remained childless, she continued well for two or three years, and then went to the Jefferson College Hospital, where she was supposed to have rheumatism, but as the pain was in the lower part of the abdomen on the side corresponding with the seat of the fœtal cyst, Dr Allen attributes the attack of pain to the presence of the foreign body, the age of the fœtus was computed at three months In Case 2 the age was believed to be eight weeks, and the woman did well for a year or two, when she had an attack of peritonitis lasting about three weeks She subsequently married, bore a female child, now ten or eleven years old, had a second attack of peritonitis about a year later, and four or five years later, a third Although severe, Dr Allen did not regard the attack as dangerous to life

Dr J C Reeve's patient has had a probation of six years, and has had no after trouble to note

Dr C L Billington writes me that his patient has improved in health, and that although the fœtus was computed to have a three months' growth, "there was no tumor perceptible five or six months afterwards"

Dr Lusk's second operation was followed by a peritonitis which confined the patient to bed for two months She is now near her maturity of pregnancy and has had no trouble during gestation from the presence of the tubal sac

Dr Bache McE Emmet's case never showed the the slightest effect from the presence of the ectopic fœtus up to the last report, about a year ago

Dr Garrigues examined his patient two years after the operation, which was performed upon a fœtus of "barely two months," and "the tumor to the right of the uterus had entirely disappeared" She had no longer any orgasm in sexual intercourse

Dr P F Mundé reports that at the end of two years his patient remains perfectly well

In her menstruation, which was in progress when I last saw the patient of Dr Kelly, the loss was restored to its normal moderation, and she was free from pain

Dr **Baer** spoke of a case of extra uterine fœtation which had gone to full term, and in which laparotomy was performed thirteen months after the death of the fœtus The mother had shown great loss of vitality, and the tumor felt loose in the abdominal cavity and promised to be easy of removal, but when the abdomen was opened, adhesions were found so numerous and strong that removal would not be safe The opening in the sac was stitched to the abdominal wound The temperature did not rise and there was full recovery This was an instance of tubal pregnancy carried to full term

Dr **Parish** said we would find, in the large majority of these cases, that at an early period adhesions would be slight and removal easy Operation after rupture of the cyst is not complicated by adhesions except those formed by the placenta, which are so vascular as to defy separation, and constitute the great danger Prior to the fourth month before such adhesions are formed, it is safe and easy to operate It is a favorable time to operate after the death of the fœtus, because the maternal tissues lose the extreme vulnerability that exists during the life of the child

Dr **Longaker** had been surprised at the absence of peritonitis after so much pain and tenderness

Dr **Kelly** remarked that the pain had always been non febrile, there had been no elevation of the temperature or pulse

There had, in this case, been no sense of contraction in handling the tumor, as had been noticed in hydro-salpinx

L Tait had heard the uterine souffle in one case at his first examination, but could not find it again Dr Kelly has a case of extra uterine fœtation on hand now, and is waiting for the death of the fœtus, when he will operate Ohlshausen has formulated the rule that "any abdominal tumor as large as the fist should be removed"

FOREIGN CORRESPONDENCE

LETTER FROM LONDON

(FROM OUR OWN CORRESPONDENT)

Royal College of Surgeons of Dublin, Honors to Pasteur, Huxley, Paget, Lister, Wells and Marshall—Vivisection Experiments in 1885—King Theebaw's Hairy Family—Anthropological Society of Bombay—Bulbar Paralysis

The Lord Lieutenant and Lady Aberdeen, together with the Prince and Princess Edward of Saxe Weimar, were present on the afternoon of April 28, at some interesting ceremonies in the Royal College of Surgeons, Dublin First, Honorary Fellowships of the College were conferred on MM Pasteur and Huxley, Sir James Paget, Sir Joseph Lister, Sir T Spencer Wells, and Mr John Marshall From various causes Sir James Paget was the only one of the recipients who was able to be personally present Next was unveiled a statue erected to the memory of William Dease, one of the founders of the College and its first President He died in 1798 This statue which is erected in the entrance hall, is the gift of his grandson, Mr O'Reilly Dease, who has also presented the Butcher Museum for the accommodation of surgical casts This Museum was formally opened The honors of the reception was performed by Sir Chas A Cameron the President, and Mr William Stokes, the Vice President, the former of whom made an interesting speech eulogising William Dease and Sir James Paget

The report from inspectors on experiments performed on living animals during 1885 has just been published The total number of experiments performed during the year was about 800 Of these 210 were done under the restrictions of the license alone, and eighty two lecture demonstrations under similar restrictions As regards the amount of pain involved in these experiments, in all of them, except those performed under special certificates, the animals are rendered insensible during the whole of the experiment, and are not allowed to recover consciousness With respect to the experiments under special certificates, which dispense either partially or entirely with the use of anæsthetics, no less than 328 consisted, so far as any operative proceeding was concerned, in simple inoculation or hypodermic injection, either with some morbific virus or for the purpose of therapeutic inquiry, and in which the administration of an anæsthetic to which all animals have a great repugnance, would only entail needless annoyance and distress. In this class of experiments, when the inoculation took effect at all, any appreciable suffering could be likely to ensue only in those cases in which some morbid affection was induced as in ordinary vaccination. It is impossible to give any precise estimate either of the number of cases thus affected, or still less to appreciate the trifling and brief distress rather than actual pain that would be caused. Considered in this way from the returns that have been received from the various operators, and from other considerations drawn from their reports, it appears that the number of animals that suffered any appreciable pain might be estimated at thirty-five or forty and these for the most part frogs. Although the number of experiments in 1885 was nearly double those performed in 1884 the increased number consisted of experiments not, or scarcely involving any appreciable increase of suffering of the animals employed.

Ex-King Theebaw's famous hairy family, which he long kept jealously at Mandalay, are coming to Europe for exhibition. The family have been renowned in Burmese history for many years, and the present members, a mother and son, form the fourth generation known. The mother is 63, quite blind, and usually sits motionless on a platform, occasionally fanning herself and speaking in a low, sweet voice. She was seen and described by Colonel Yule when on a mission to the court of Ava in 1855. Save her hands and feet, she is covered with long soft hair, like her son, who is covered even to the drums of his ears, the hair in some places being five inches long. The man is of medium height, with pale brown skin, and is fairly friendly, having been partly educated and married to a maid of honor. Neither he nor his mother have either canine teeth or grinders.

An Anthropological Society has been founded in Bombay in order to gather and classify information respecting the native races of India. The scheme is eagerly taken up and a large number of members have already joined, under the presidency of Mr. Tyrell Leith. As a native member points out, the Bombay Presidency affords excellent ground for commencing such work considering the mass of aboriginal tribes in the hills and jungles, descendants of the non-Aryans driven out by the Aryan invasion. They are generally known as the "black races," and preserve native traditions fully 3,000 years old.

An interesting case of bulbar paralysis has recently been under the care of Dr. Broadbent, and was mentioned by him at the last meeting of the Harveian Society. The case occurred in a man aged 35, who was admitted as an in-patient into St. Mary's Hospital on January 29, 1886. While a soldier serving in India he had suffered from ague, syphilis, sunstroke, dysentery, etc. The first thing he noticed was that about a year before admission he began to lose his voice, and the food collecting in the sides of his mouth, gave him difficulty in swallowing it, necessitating manipulation with the fingers, the saliva dribbling away. These conditions, along with a gradually increasing muscular weakness, had continued, with now and then a slight remission, until admission, when he was unable to speak except in a whisper, every syllable necessitating a long forcible expiration. The tongue was small and shrunken, could not be properly protruded, but could be moved from side to side. There was impaired movement of all the facial muscles of expression, traces of the reaction of degeneration, general muscular wasting, increased superficial reflexes and good sensation. There had been a general improvement since admission in all these symptoms, the chief trouble arising from the profuse amount of saliva with which the pharynx and larynx were frequently blocked. The condition of the patient at the meeting included all the foregoing symptoms, with the addition of pain in the left side of the face and head, with occasional nausea. The ophthalmoscope showed pallor of the centre of the discs and very small vessels, vision was consequently impaired. The pupils were somewhat contracted, but retracted to light and accommodation. Hearing was also impaired. The heart's action was weak, but regular, respiration was chiefly abdominal. The man walked with a stiff but steady gait, had great difficulty in going up stairs or in rising from his seat, owing to weakness of the extensor muscles of the thigh, which, in common with most of his extensor muscles, were wasted, exhibiting to a slight extent the reaction of degeneration. The superficial reflexes were exaggerated, and there was ankle and thigh clonus in the left leg. Sensation was complete. Treatment had consisted of rest in bed, with 30 grains of iodide of potassium daily.

G. O. M.

BOOK REVIEWS.

A SYSTEM OF OBSTETRIC MEDICINE AND SURGERY, Theoretical and Clinical. For the Student and Practitioner. By ROBERT BARNES, M.D., Obstetric Physician to St. George's Hospital, Consulting Physician to the Chelsea Hospital for Women, etc., and FANCOURT BARNES, M.D., Physician to the Royal Maternity Charity and to the British Lying-in Hospital, Assistant Obstetric Physician to the Great Northern Hospital, Physician to the Chelsea Hospital for Women. 8vo., pp. 884. Philadelphia: Lea Brothers & Co. Chicago: Jansen, McClurg & Co. 1885.

In the preface to this work the statement is made that "the history of gestation, of puerpery, of the mechanism of labor and of hæmorrhage, is contributed by Robert Barnes, while much of that which relates to the prophylaxis of puerperal diseases, and the description of operations, is contributed by Fancourt Barnes. Still the production is essentially a joint production." That part of the book which treats of embryology is contributed by Prof. Milnes Marshall. The authors justify their action in calling upon Prof Marshall by saying that "no man can hope to master the facts and science of embryology unless he can spend several hours daily in the physiological laboratory "

The authors claim that the immediate purpose of the work is to furnish a handbook of obstetric medicine and surgery for the use of the student and practitioner, and they have succeeded well in their purpose It is not an exaggeration to say of the book that it is the best treatise in the English language on obstetrics yet published, and this will not be a surprise to those who have been familiar with the work of the elder Barnes

The limits of this review make it impossible to analyze in detail even the chapters of the work, and hence mere mention of one or two special subjects must suffice Unfavorable criticism may seem presumptuous, but the authors have hardly given as much attention to the application of Braxton Hicks's method of bimanual version in *placenta prævia*, as the matter deserves, especially in view of the very favorable results which have recently followed that practice in Germany (For particulars see *American Journal of Obstetrics* for December, 1884—a report by Dr Richard Lomer, assistant at Schroder's clinic in Berlin)

In relegating the so called and formerly disputed "*milk fever* " to the past the book simply adds the weight of its authority to the best teaching of the time The classification of puerperal fever may meet with some opposition, but is clearly and sensibly put, and will probably meet more approbation than opposition

What the author says in regard to the significance of kyesteine in the urine (p 175) is an amusing illustration of the strength of a prejudiced opinion After stating that Parkes, Kane and Braxton Hicks have carefully investigated the subject and have decided that kyesteine has been found in the urine of virgins, and appearances very similar to it in that of men, Barnes remarks "We may in conclusion state that, assenting to the propositions of these authorities, we have seen several instances in which a confident diagnosis of pregnancy expressed on the evidence of this appearance proved to be correct "

Perhaps the only serious fault of the book is the lack of fulness and completeness in the index So good a book deserves a better index than this one has In conclusion it is not an exaggeration to say that every practitioner who desires to have the best obstetrical opinions of the time in a readily accessible and condensed form, ought to own a copy of the book

A TREATISE ON NERVOUS DISEASES, THEIR SYMPTOMS AND TREATMENT A Text Book for Students and Practitioners By SAMUEL G WEBBER, M D Clinical Instructor in Nervous Diseases, Harvard Medical School, member of the American Neurological Association, etc , etc 8vo pp ix—415 With Illustrations New York D Appleton & Co 1885 Chicago Jansen, McClurg & Co

The author disarms hostile criticism by the statement in his preface that the book is not written for specialists The general introductory chapter on methods of examination in nervous diseases, together with a consideration of certain general conditions common to many forms of nervous lesion is well written The general classification made by the author is 1 Diseases of the Brain, 2 Diseases of the Spinal Cord, 3 Diseases of the Peripheral and Sympathetic Nerves, Unclassified

The anatomy of the brain is illustrated by fifteen figures taken from Ecker, Wernicke, Erb and Ferrier, some of the drawings being modified in reproduction The arrangements of the relation of the text to the drawings is unfortunately such that the combined impression obtained from them is much less clear than it both ought and might be The anatomy of the cord is illustrated by Hammond's colored plate, modified from Flechsig, and leaves nothing to be desired The arrangement of colors is such that the relations of the direct and crossed pyramidal tracts may be seen at a glance, and the text is clear and direct

Among the "unclassified" diseases the author has given a satisfactory account of the comparatively rare and interesting disease *tetany*

The general arrangement of the book is excellent, but the clinical pictures of the various diseases are not so closely cut and systematic as it seems might be easily possible

A list of the authors consulted, together with the titles of the articles by each, is given at the head of each chapter

In his discussions of treatment, the author shows that he is not a friend of nihilism in therapeutics, and also that he is familiar with the subject of which he writes

For the purpose designed, for students and practitioners, the book is a valuable addition to the literature of the subject, and will prove a reliable clinical guide in the hands of any one who reads it carefully

MISCELLANEOUS

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM MAY 29 1886 TO JUNE 4 1886

Capt E F Gardner, Asst Surgeon, ordered for duty at Madeira Barracks, N Y (S O 47, Div Atlantic, June 1, 1886)

First Lieut R L Robertson, Asst Surgeon, relieved from temporary duty at Ft Snelling, Minn , and ordered to Ft Keogh, M T

First Lieut Jno L Phillips, Asst Surgeon, relieved from duty at Ft Keogh, M T , and ordered to Ft Sisseton, D T (S O 45, Dept Dak , May 24, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JUNE 5 1886

Smith, Howard, Surgeon, detached from the "Nipsic" and placed on waiting orders

CORRIGENDA

In THE JOURNAL of May 29th page 605, the residence of Dr W B Welch should have been given as Fayetteville Arkansas, and that of Dr W C Wile as Newtown Conn , instead of New London

THE
Journal of the American Medical Association.
EDITED FOR THE ASSOCIATION BY N S DAVIS
PUBLISHED WEEKLY

Vol VI CHICAGO, JUNE 19, 1886 No 25

ORIGINAL ARTICLES

RESEARCHES INTO THE ETIOLOGY OF DENGUE[1]

BY J W McLAUGHLIN, M D,

OF AUSTIN, TEXAS

The epidemic of dengue which prevailed throughout the State of Texas during the fall of 1885, was unusual in many respects, for example

1st In its universality
2d In the violence of its symptoms
3d In its manifest contagiousness
4th In the protracted convalescence of its subjects
5th Its hæmorrhagic tendency
6th In its numerous sequelæ

From Galveston, located in the South eastern portion of the State, it spread, in the course of a few months, to its Northern border During this time almost every city, and many of the country districts within these limits, fell under the epidemic influence of this disease In the city of Austin about 16,000 cases of dengue occurred during this time, out of a population of 22,000 inhabitants I am informed that other cities and sections suffered as severely, *i e*, had as many cases in proportion to the population as did Austin

Many cases where direct contagion was the cause of this disease came under the observation of the writer He has no doubt that by this means it was carried and spread from one neighborhood to another, and from the city to the country by infected individuals The violent type of the disease, the protracted convalescence of its victims, and its sequelæ, were unusually prominent in this epidemic The *first*, by the suddenness of its invasion, often with an initial chill, its pyrexia, its excruciating pains, nausea, and the constancy of its exanthemata The *second*, by the mental and physical prostration which follows its defervescence, this often continues for weeks or months, with anorexia and indisposition to perform any kind of labor

The sequelæ most frequently observed were dysentery, entero-colitis, nephritis, bronchial and gastric catarrh, abscess, glandular enlargements and eruptions of the skin It would seem from the peculiar clinical history of dengue, especially its contagiousness and its epidemic character, that it is a specific disease, that micro organisms are the source of its infection, and these micro organisms find in the blood a suitable environment for their growth and multiplication

To determine the correctness of this theory, and if possible to obtain information with reference to the etiology and pathology of this malady, which is the scourge of our southern country, and especially as medical literature is absolutely silent upon these matters, the following experiments were conducted, with hopes that they would lead to a more rational therapy, or perhaps indicate some method of protecting individuals against dengue by means of inoculating them with the attenuated virus I found, however, that I had neither the time nor means of carrying out the necessary investigations to determine the practicability of this hope, or of accomplishing these latter anticipations A physician engaged in active practice has but little time, whatever his inclination may be, to indulge in experimental work The demands of his patients and his creditors too frequently prevent his giving that time to original work or pure scientific labors which the interests of his profession demand

During the six months occupied in making these investigations, one-half, and frequently two thirds, of nights succeeding days of toil, were utilized in these labors, they possessed my interest, I managed to give them much of my time The work actually performed during this time is embraced in the following statements

1st Blood, which was obtained from living subjects during the various stages of dengue, was microscopically examined, (a), directly, that is, without the addition of any chemical reagents, (b), after it had been subjected to the action of certain chemical reagents, viz glacial acetic acid, with and without dilution, caustic potash in solution, both weak and strong, chloroform, and ether

2d This blood was carefully dried upon sterilized cover glasses by passing these through the flame of a spirit lamp, and then subjected to the action of various staining reagents

3d Dengue blood obtained from living subjects was introduced, upon the point of a platinum wire, into test-tubes containing sterilized culture jelly prepared for this purpose

These tubes were closed with plugs of sterilized cotton, then placed in an incubator, where the temperature was kept at 100° F for the growth of such organisms as were contained in the blood

4th Blood was drawn directly from the veins of a living subject into a series of sterilized glass bulbs, which were united by a capillary tube. This was performed in such a manner that it seems impossible for germs from the air, or by other accidental means, to have gained an entrance into these bulbs. These were also kept in the incubator, at a temperature of 100° F.

---

[1] Read in the Section on Practical Medicine at the Thirty Seventh Annual Meeting of the American Medical Association, St Louis May 1886

5th. The matters vomited and urine passed by dengue subjects were subjected to microscopic examinations.

It is the purpose of this paper to record the methods adopted in making these examinations, and the results obtained from them. Before entering into the technique of these methods, which are necessarily tiresome, I think it better to submit the following outline of the results obtained. In the blood examined directly, or after its treatment with the chemical reagents already referred to, stained or unstained, I invariably found, often in great numbers, in the cell elements as well as in the plasma, micrococci about $\frac{1}{20}$ to $\frac{1}{30}$ the diameter of the red cells, spherical in shape, and red or purplish in color; when these were seen in great numbers one layer superimposed upon another; frequently seen in the cultures, they appeared of a black or brownish color, but when seen singly or in thin layers in the blood or in the cultures, the red color is always distinct and characteristic.

During the development of this organism, at some period in its life history, from causes which I do not understand, it becomes surrounded by a gelatinous envelope; this I have frequently observed in the blood and in the cultures alike. I always succeeded in growing in the culture tubes, upon the surface of the jelly, micrococci, and no other form of bacteria, which in color, size and behavior, are identical with those seen in the dengue blood. The blood contained in the series of glass bulbs was examined, some after the lapse of six weeks, others at three months. In both instances I found that the blood contained a pure culture of micrococci which, in all respects, were the same as those which I had previously seen in fresh blood, and grown upon culture jelly, in culture tubes; these were apparently composed of micro organisms held together by their gelatinous envelope, or capsules; at the end of the casts, where the micrococci were less firmly attached, or cemented together, their shape, size and color were found to correspond with those seen in the blood, or grown in the culture-tubes, or bulbs.

The microscopic examination of the blood for micro-organisms is attended with many difficulties. The first care is to obtain blood for examination that is not contaminated with bacteria from the air, or from other outside sources. In all examinations of the blood, or other portions of the body, for micro-organisms, every precaution against its accidental contamination, or the introduction of germs from outside sources, should be taken; without such precautions all investigations of this sort would be worthless and delusive.

When it is remembered that air and water contain large quantities of micro-organisms, that these adhere to the glass apparatus, metal instruments, fingers, and clothing of the operator, and that bacteria will quickly form in distilled water, and in staining fluids required in such examinations, the necessity of thoroughly washing and then sterilizing by heat and by chemicals, when this is practicable, all articles used, and by boiling and filtration, or other efficient means, becomes at once apparent.

The methods which I adopted to secure cleanliness and sterilization of all glass apparatus, instruments, and other agents used in these experiments, may not have been absolutely perfect in every instance. I made them as nearly so as the means at my command would allow. I am constrained to believe, from the uniformity of the results obtained, notwithstanding some minor defects in the detail of my technical methods, that, in the main, these were sufficiently exact to exclude serious errors.

The second difficulty which confronts him who examines blood for schizomycetes, is to dry the blood on the cover-glass without overheating, and thus disintegrating it.

The third difficulty is, to not mistake for micro-organisms certain elements and granules found in normal and pathological blood. These mistakes have occurred frequently, and wrecked many a beautiful hypothesis. That the reader may know and appreciate the difficulties to which I refer, I quote from the recent work of Dr. F. Huppe.[1] "The examination of blood for bacteria offers very great difficulty, because in the normal blood within the vessels, and in the normal disintegration of the healthy blood, granular elements are present, or are formed, which under certain pathological conditions, in anæmic state and in fever, are increased in number, and can be easily mistaken for micrococci.

"They have already been often confounded with micrococci, and are almost daily mistaken for them, *e. g.*, the renowned syphilitic corpuscle, and the so-called organisms of the venom of serpents. Here belongs also much of what has been spoken of as the development of bacteria from nitrogen molecules, from microzymen, or from the anamorphosis of protoplasm. An exact study of these granules of the blood is, on this account, an indispensable desideratum in bacteria investigation.

"These granular forms further constituent parts of the cellular elements of the blood, and on this account again are of interest in ætiology, because there are parasites which are similar to the amœboid cells, *e. g.*, those monads found by Lewis in the blood of rats, by Koch in the blood of marmots. The elements of the blood, which directly or through their granules may be confounded with micro organisms (with the exception of the red blood corpuscles), and the products of their disintegration), are divided according to Ehrlich into

"1st. Lymphoid elementis, (a), small lymph cells, (b), large lymph cells.

"2d. Myeloid cells (eosinophile).

"3d. Undetermined spleen and [or] marrow. (a), large mononuclear cells, (b), transitional forms, (c), polynuclear.

"The small lymphoid elements are somewhat smaller than the red blood corpuscles, possess a very large nucleus, so that there is very little or no protoplasm to be seen

---

[1] 'Methods of Bacteriological Investigation' by Dr. Ferdinand Hüppe. D. Appleton & Co., New York. 1886.

"The large lymph elements are a further development of the first, and are only to be differentiated from them in this, that they possess, around the large nuclei, a distinct border of protoplasm

"The myeloid elements are large round cells, with large oblong nuclei

"The mononuclear cells are about three times the size of the red blood corpuscles, possess round or oval nuclei of large size, and a considerable mass of protoplasm The mononuclear transitional forms are to be differentiated from these cells only in this, that the nuclei are no longer round or oval, but have become indented

"The polynuclear elements are somewhat smaller, but still are always larger than the red blood corpuscles, and their nuclei show, as a further differentiation, a polynuclear form, these are the true white blood corpuscles

"The granular elements, or granules, which are present in the cells, and which become free in the destruction of the same, are divided with respect to their reaction to aniline dyes

"The *α* or eosinophile granule is coarsely spherical, strongly refracting, and can be stained in all the acid aniline dies It is present in the myeloid elements, seldom in the normal blood, and its number is greatly increased in leucæmic processes

"The *β*, or amphophile, is formed especially in the marrow, very often in the leucocytes in the blood of rabbits and guinea pigs, and can be stained by acid and basic aniline dyes

"The *γ*, or basophile plasma cell granule, can be stained, like the bacteria, by the basic aniline dyes These granules are coarse, slightly refracting, almost completely wanting in normal human blood, increased in leucæmic processes, and are present normally in the blood of the lower animals, especially the white rat

"The *δ*, or basophile granule, is fine, and can be stained in basic aniline dyes, and forms a constituent part of the large mononuclear elements

"The *ε*, or neutrophile granule, is very fine, and fills the polynuclear elements of the human blood quite thickly, is present sparsely in the transitional forms, and very seldom in the mononuclear elements It can be stained by the neutral dyes Without recourse to staining, these granules, as a whole, and also the products of the disintegration of the red blood corpuscles, may be confounded with micrococci

"By systematic staining with aniline dyes the *α*, *β* and *ε* granules can be excluded An error is then possible only with the *γ* and *δ* granules, because these are stained in the basic aniline dyes, the same as the bacteria. These last, on account of their fine grain, can, with comparative ease, be differentiated from micrococci, and have not, as yet, been confounded with them

"The plasma cell granules on account of their medium size, come so near to the known forms of cocci that not only the individual free granules in the blood have been considered as cocci, but even the so called plasma cells in the tissues have been described as colonies of cocci They can, on purely morphological grounds, be differentiated from them in this way, viz That they do not all have the symmetrical appearance of the cocci, but present the greatest differences in the size of the granules

"If it be desired to examine the blood for bacteria, a small drop is rapidly spread out in a thin layer, dried, fixed, and then passed three times through the flame, and then stained in the ordinary manner In such preparations the bacteria are sufficiently stained, but not the granules"

Prolonged heating of cover glass preparations, or sections containing these granules, is necessary to their successful staining The method of doing this, which is recommended, is to subject the specimens, in a drying oven, to a temperature of 240° F for an hour, they are then prepared for the staining process, and may be stained with their respective dyes, acid, basic or neutral, in the manner described

As micrococci and other forms of schizomycetes do not require this prolonged heating in order to their successful staining with the aniline dyes, renders this difference in the behavior of the protoplasmic granules on the one hand, and micrococci on the other, an efficient means for their differentiation

All the glass apparatus and instruments used in the following examinations of dengue blood were sterilized by the following methods The cover-glass and microscope slides, which had never been previously used, were first washed in warm water with soap, then in clear water, then immersed in Seiler's cleansing fluid, prepared as follows

Bichromate potash	2 oz
Sulphuric acid	3 fld oz
Water	25 fld oz.

When they were taken from this solution, they were again washed in clear water, and finally heated in the flame of a spirit lamp just before they were used The metal instruments were washed in warm water and soap, clear water, and then in a 5 per cent solution of carbolic acid, they were also heated in the flame of the lamp just before they were used The platinum wire was fused to the end of a glass rod, this wire was sterilized always before using, by heating it to whiteness in the lamp The arm or finger of the person from whom the blood was obtained was washed with warm water and soap, then in a 5 per cent solution of carbolic acid

The part was then punctured with a sterilized needle, and a small portion of the blood which appeared at the point of puncture was transferred by means of the sterilized platinum wire to the sterilized cover glass, this was covered by another glass in order to obtain a thin layer of blood upon each of them, they were then separated, dried, and finally passed three times through the flame of the lamp, in order to thoroughly coagulate the albumen, and fix the blood elements

Blood for examination was obtained from about forty typical cases of dengue, at various times and places, and during the various stages of the disease The results which I obtained from examinations of these different specimens were entirely uniform

Dengue blood dried upon the cover glasses in the manner described was subjected to the action of certain chemical reagents, and aniline dyes, with the following results, viz. some were treated with a 10 per cent. solution of caustic potash, others with glacial acetic acid, and others with ether and chloroform. None of these chemical agents had any destructive effect upon the micrococci which the blood contained—they could be seen as brilliantly and distinctly after treatment as before.

A peculiar effect was produced upon the micro organism by the glacial acetic acid. This agent stained these organisms brownish, and changed their shape from spheres to ovoids; these were seen in such numbers that the field of the microscope was covered by them. I think this change in shape was only apparent, and was caused by the action of the acid upon the capsules of the cocci. I am sustained in this opinion by the fact that the organisms seem larger after treatment with the acid; this was due to the invisible capsule being made visible by this agent. Inasmuch as there are no tissue elements in normal or pathological blood, as corpuscles, granules, cells or cell elements, which can resist the destructive action of each of these chemical reagents, whilst bacteria, on the other hand, can resist them, it would seem evident that if spherical bodies, uniform in size, shape color and behavior, are found in the blood in certain pathological conditions, and these bodies can resist the destructive action of these chemicals, they must be micrococci, and cannot possibly be anything else. The remainder of these cover-glass preparations were subjected to the action of the various aniline dyes, in both weak and strong aqueous solutions, in aniline oil, water, and in alkaline solution.

The results which were obtained by these methods of staining were very instructive and important; for instance, it was shown:

First. That the dengue micrococci do not stain with the aniline dyes as readily as do other forms of bacteria.

Second. Methyl aniline blue in a weak solution of caustic potash furnishes a staining fluid for which the cocci of dengue manifest an especial affinity.

In order that the importance of this matter may be fully appreciated, I shall quote the following remarks from Friedlander:[1] "Furthermore, if among a certain number of elements which appear to be identical, some conduct themselves in a peculiar way toward a certain reagent, while others do not—if, for example, some are stained by a certain dye, while others remain colorless, we must necessarily conclude that there was a primary difference among the elements. Upon this principle are formed all the methods of preparation, and some of them very complicated, which are employed for the exhibition of the different histological elements. The principle in staining is, therefore, that certain elements or tissues, and also of cells, appropriate actively, or in large quantity, from the solution employed, a certain dye, and form with this a combination having an intense color, that is more or less permanent. Hence in many instances staining assumes the importance of a chemical reaction, by means of which any particular structure that lies concealed among other bodies, can be brought easily into prominence.

"This 'elective' action of dyes is of extreme importance in pathological investigations. The technique of dyeing is usually this: A section is transferred from distilled water to a dish filled with the staining solution, with which it is entirely covered; it remains in this for different lengths of time, varying from a few minutes to twenty four hours, and is again immersed in distilled water, in order to wash away the portions of the dye that are adherent to its exterior.

"In many cases, however, the section which has been removed from the staining solution, and washed, is subjected to further manipulation; it is again decolorized, that is, partially. In this instance there has occurred at first a diffuse, even, but unnecessary amount of staining; but during the supplementary process of extraction, while certain elements give up their staining completely, others, that have a stronger affinity for the dye, retain it. This is called by Ehrlich the principle of maximum staining. In accordance with these principles of staining, the blood, which had been dried upon the sterilized cover glasses, was submitted to the action of various aniline dyes, to find, if possible, some staining fluid with which isolated staining of the micrococci could be produced."

With this object in view, I tried successively Bismark brown, vesuvin, gentian, violet, methyl violet, fuchsin, methyl blue, aniline green, picro carmine, and eosin in watery solutions, and in solution with aniline waters. This result was obtained imperfectly with the solution of fuchsin in aniline water, and perfectly with methyl-blue in a solution of caustic potash.

With all the other dyes named, the results were negative, *e. g.*, all parts of the picture were stained alike—cells and organisms—and they were all decolorized with equal facility when washed in a 1 per cent. solution of acetic acid and then in absolute alcohol. With the methyl blue potash solution, however, a very different result was obtained; this dye, in the solution referred to, manifested such an affinity, or elective action for the organisms of dengue, that these would retain the blue color after this had been extracted from the blood cells by the decolorizing agents named.

The manner of preparing this solution, and the method of staining with it, which were adopted, are as follows: Concentrated alcoholic solution of methyl blue, 30 c. cm.; solution of caustic potash, 1 to 10,000, 100 c. cm. In a dish filled with this fluid the cover-glasses were floated, with their blood sides downward. The dish was then covered to exclude dust, and the cover-glasses were kept in this condition from twelve to twenty four hours. Better results are obtained by keeping the staining fluid during this time at the temperature of 100° F. The cover glasses are then removed from the staining solution and washed in the 1 per cent. solution of acetic acid, then in absolute alcohol, until the color is entirely or sufficiently removed.

---

[1] The Use of the Microscope in Clinical and Pathological Examinations. By Dr. Carl Friedländer. D. Appleton & Co. 1880.

I think a better picture is obtained, and the relative position of the organisms to the cells shown, if the process of extraction is arrested before the cells are entirely decolorized; they should then be mounted in Canada balsam, and examined with a high power, and with a large diaphram or open condensor. The blood cells should show of a faint blue color, whilst the micrococci, which are to be seen in the blood cells and plasma, will be stained an intense blue. The inability of these organisms to hold the other aniline dyes, acid or basic, to which they were exposed, their uniform size, their presence in the blood cells, their ability to resist the destructive action of acids, alkalies, ether, etc., it would seem are sufficiently distinctive to differentiate them from protoplasmic granules, or the products of cell disintegration. An additional reason for regarding them as micro organisms exists in the fact that they can and have been grown upon culture media, outside of the body.

In conducting these culture investigations, the same care to guard against error in results was practised as in the former. The test tubes, which had not previously been used for any purpose, were thoroughly washed with soap and water, then in clear water, dried, and plugged with absorbent cotton; they were then put into a furnace and exposed to a temperature of 400° F. for an hour. The culture medium which was used in all these investigations was that known as Miguel's lichen jelly; this was used in preference to gelatine, blood serum or other solid culture media for the following reasons:

It melts only between 55° and 60° C. (131° to 140° F.), which permits of the cultivation of such organisms as require for their development elevated temperatures. Ordinary nutritive gelatine melts before 30° C. (86° F.). Second. It remains without alteration or losing its power of solidifying when exposed to a temperature of 100° C. (230° F.) for rigerous sterilization. Gelatine, on the contrary, is reduced under such conditions to a turbid broth, which remains fluid on cooling. It is prepared by digesting Irish moss—*crispus chondrus*—in beef broth.

The broth is prepared as follows: Allow sixteen ounces of lean beef, as fresh as possible, two quarts of water, and sixteen grs. of table salt, to simmer for four hours in an uncovered vessel, then close it and boil for an hour, cool, and skim off the fat, neutralize carefully with carbonate of soda and filter.

In preparing the jelly, one ounce of Irish moss was digested in one quart of the broth, at a temperature short of boiling, the resulting decoction was passed through a colander to separate the swollen leaves, and then filtered through sterilized bolting cloth. It was then boiled for an hour, and whilst at this temperature the test tubes were filled with this jelly, by means of a sterilized pipette, to about half their capacity; cotton stoppers were then introduced in the tubes, and these were subjected to a temperature of 212° F. in a Koch and Grafiky sterilizing cylinder for an hour each day for seven successive days.

After the last heating, the tubes were placed at an angle whilst the jelly cooled, in order that as large a surface as possible should be presented upon which the organisms could grow and multiply. Many test tubes were sterilized and filled with the jelly, and subsequently subjected daily to the temperature of boiling water in the manner above described. These were carried to the homes of those persons from whom dengue blood was obtained for inoculation purposes.

In obtaining this blood, every possible danger of introducing germs by accidental means was guarded against. The method of washing the arm and sterilizing the needle with which the puncture was made, has been described. A small wire of platinum, fused to the end of a glass rod, was used to convey a small quantity of the blood which appeared at the point of puncture into the test tubes, where the point was brought in contact with the surface of the jelly. The only chance of introducing air germs occurred during the short time the cotton plug was removed to allow the passage of the platinum wire; the wire, of course, was heated to whiteness just before its use. Some twenty tubes of jelly were directly inoculated with the blood of dengue subjects; the blood used was obtained from different individuals, and always at their homes. These tubes were then put into an incubator, where the temperature was maintained constantly at 100° F., for the growth of the dengue organisms.

Without a single exception every tube which had been inoculated in the manner described showed, upon the surface of the jelly at the point of inoculation, a white spot elevated above the surface of the jelly; this gradually enlarged and could be seen, faintly outlined in the jelly, at the expiration of twenty-four hours. When this growth was examined under the microscope, with a high power, it invariably showed a pure culture of micrococci—which in color, size, shape and behavior, were identical with those seen in the blood of dengue subjects.

The uniformity of these results, in all the tubes inoculated, in growing these micrococci, and never other forms of bacteria, would certainly indicate that the matters of inoculation came from a common source, *e. g.*, the blood. If they had been accidentally inoculated from the air, or by the platinum wire, or through want of absolute sterilization of the tubes, many other forms of bacteria and fungi would have been found growing on the jelly, and these tubes, when opened, would have had the odor of putrefaction, which was not present in any of them. These cultures were continued from test tube to test tube for a period of six months. The method of perpetuating these pure cultures of the dengue micrococci, was to inoculate in the manner described, the sterilized jelly, in a fresh tube, from one which had previously been inoculated from the blood, then a third tube from the second, a fourth from the third, etc., through many generations of the organisms.

When it is considered that these culture investigations occupied a period of six months, and that during this time many transfers occurred from test tubes containing micrococci to those which did not contain them; that each transfer removed by generations the organisms from those contained in preceding tubes; that frequent microscopic examinations of the different series of tubes invariably revealed a pure culture, e. g., without any other forms of bacteria, it would seem that the methods of sterilization employed had been successful in excluding alien germs, and that those found had a common origin from dengue blood.

The life history of these organisms was watched daily, and studied by means of Holman's life-slide. In the old cultures, those which were removed by many generations from the blood, the organisms were smaller, less deeply colored, and less frequently encapsulated, than those seen in the blood, or removed from it by a few generations. When examined in water without being stained, or in other fluid media which possess a low index of refraction, the micrococci are seen in active movement (Brown movement).

In those cultures which are removed by only a few generations from the blood, the cocci are seen surrounded by capsules. These are sometimes faintly colored pinkish, and can be distinguished from the cocci, which possess a deeper color.

Two methods of generation were observed. The first by fission, the organisms are seen to divide through their centres, each coccus will thus form two others. Frequently these newly formed organisms remain united together so as to assume the form of a rod or chaplet, this indicates that they belong to the class named streptococci. In other cases they unite to form swarms or zoogloæ. These latter become more compact, the distinctions of the cocci less, the color of the mass deeper, until they finally contract into corpuscular bodies, about the size of red blood cells, these often unite to form filaments, which frequently assume the shape of a network. This I have often seen when the culture was thinned with distilled water and allowed to dry upon a microscopic slide. This arrangement can be seen, whether the specimens are stained or not. The swarms and chaplets of the micrococci can be much better seen in the stained preparations. A histological stand, Abbé's illuminating apparatus and $\frac{1}{12}$ H. I. objective, manufactured by J. Grunow, of New York, were used in these researches.

The results obtained in the following and last series of investigations of dengue blood are to me very satisfactory and conclusive, inasmuch as the means adopted to exclude alien germs were, as far as I can see, absolutely perfect.

The apparatus used consisted of a series of glass bulbs united and blown upon a capillary glass tube—Liebig's potash bulbs. To one end of this apparatus was attached a new hypodermic needle, by means of a short piece of new rubber tubing. To the other end of the glass tube (which was packed with cotton) was attached an aspirator.

The following is the method used in sterilizing and using this apparatus, viz. The series of bulbs were first chemically cleaned, one end of the tube was then packed with absorbent cotton, and the bulb heated in a furnace for an hour at 400° F. The rubber tubing, with the hypodermic needle attached, was treated with a 20 per cent. solution of carbolic acid, washed in clear water, and exposed to the temperature of escaping steam for an hour, in the sterilizing cylinder. It was then dried in the furnace, the free end of the tubing slipped over the free end of the glass tube, and the end to which the hypodermic needle was attached was encased with a sterilized test tube, this was held in its place and the needle protected from air germs by means of absorbent cotton, that was packed firmly in the mouth of the test tube, and around the needle. The entire apparatus as thus arranged, tubing and needle attached, and covered with test tube, was again put into the furnace and heated to 300° F. It was then removed from the furnace and carried to the home of the gentleman who kindly donated a sufficient amount of his blood for this investigation. He had a typical case of dengue. His arm was washed with soap and warm water, dried with a freshly ironed towel, and then a solution of carbolic acid, sufficiently strong to quickly whiten the skin, was applied to that part of the arm where the puncture was to be made. A ligature was then applied to the arm above the elbow. The test tube was removed from the hypodermic needle, and this was quickly passed into the large vein, at the bend of the arm. An aspirator was then attached to the free end of the glass tube—which was packed with sterilized cotton—and the bulbs partially filled with blood by means of aspiration. The glass tube, next to the rubber, was then closed and separated by the blow-pipe, before the needle was withdrawn from the arm.

These bulbs containing the dengue blood, which were effectually closed against the admission of all germs, and which contained no germs except those which entered with the blood from the veins of the donor, were then put into an incubator at 100° F. temperature, in order that a pure culture of the dengue micrococci might be grown in the bulbs, with their contained blood as the nutritive medium.

The first bulb was removed with the blow pipe, and examined at the expiration of six weeks. The blood was examined, first, directly, without admixture, second, after treatment with glacial acetic acid, undiluted and in weak solutions, third, with 10 per cent. solution of caustic potash and in weak solutions of this alkali, and fourth, finally subjected to the various aniline dyes, before referred to.

In the direct examinations, a small drop of blood was placed upon the cover glass, this was then inverted upon a slide, so as to obtain for examination a thin layer of blood, or the blood was examined in $\frac{2}{3}$ per cent. salt solution or a solution of osmic acid 1 to 300. In those specimens examined directly, the field appeared to be covered with blood cells and dark pigment granules, these latter were seen in immense numbers.

When the blood was examined in the salt solution, or in the solution of osmic acid—this latter fixed the cells, and by giving them a faint brown color, rendered them more distinct—it was seen that what appeared as dark pigment granules in the direct examination, was now recognized as dengue micro organisms, with all their distinctive features. The red cells in many cases were absolutely crowded with these, whilst in the plasma they were seen free, in swarms, zoogloea, masses, and in corpuscular bodies, which sometimes united to form filaments, as in the jelly culture Cover glass preparations of the blood, from this culture bulb, were subjected to the various aniline stains

The indisposition to hold any of these dyes, except the methyl blue potash, was as distinctly manifested as in the fresh dengue blood The only difference in the appearance of the micrococci as observed in the fresh blood and that obtained from the culture bulbs is this The organisms, when stained, appear larger in the latter than they did in the former, this, I think, is due to the fact that in the culture bulbs they are more frequently encapsulated When both cocci and capsule are stained, the size is apparently larger

The remaining bulbs were examined six weeks later They all contained pure cultures of the dengue streptococcus, with disintegrated blood cells These organisms were seen in zooglœa, swarms, and in compact corpuscular masses, these were often united to form filaments Normally shaped blood cells were found in only one of these last series of bulbs I think their preservation in this bulb was due to a layer of coagulated serum which had formed over the surface of its contained blood Many of the blood corpuscles in this bulb were more or less disintegrated, those which retained their shape were clouded by coagulation of the cell protoplasm, which concealed the organisms they contained to a greater or less extent These, however, could be seen in great numbers, when the blood was examined in a weak alkaline or acid solution, which rendered the cells more transparent None of the bulbs, when opened, had the least odor of putrefaction, and the only micro-organisms which they contained were those peculiar to dengue

Pure cultures of these were found in each of the series of bulbs, and were seen in their various stages of development, *e g*, with and without capsules, in swarms, in zooglœa masses and in corpuscular shaped bodies, frequently united to form variously shaped filaments In these filaments the corpuscular masses, and often the cocci which formed them, could be seen faintly outlined

This ends, at least for the present, these investigations No one better knows than myself the incompleteness of this work, nor appreciates better the possibilities which might have resulted from its continued prosecution The want of time and facilities for its proper execution prevented me from undertaking any additional labors in this matter The investigations were undertaken without bias, and the conclusions arrived at are the result of careful, conscientious work Whether these conclusions are true or false must be decided by the future

I am greatly indebted to Dr R Munger, of San Antonio, Texas, for excellent micro photographs of dengue blood, obtained from the first culture bulb The zeal and patience displayed by him in this work are characteristic of the lover of science, while the excellent results obtained mark him as an expert in these matters Many efforts were made by him to photograph the specimens colored with methyl blue, success was attained only with those specimens which were stained after Sternberg's method for photographing micro organisms, viz

A drop of sulphuric acid was placed upon the blood dried upon the cover-glass, this was allowed to remain for a minute, and then washed off with distilled water The cover glass was then floated, blood side downward, upon the following solution, in a watch crystal, viz

Iodine	grms 3
Iodide of potassium	" 5
Distilled water	" 500

After a few minutes' exposure the preparation will be found to present a deep orange color, which gives the desired contrast in a photographic negative The micro photographs which he obtained from specimens stained by this method displayed the blood cells, in which appeared many micrococci, while zooglœa and swarms are seen in the blood plasma

In conclusion, I desire to express the regrets I feel in not being able to complete these investigations Zopf, Koch and others indicate among the questions to be answered in a thorough study of any bacteria, the following

1 Shape, size, color and details of structure, *e g*, flagella, peculiar envelope, etc Character and speed of movements

2 Character of natural habitat Artificial media best adapted to growth and reproduction Stages of development passed through Formation of zooglœa spores, filaments rods, cocci, "swarms" Conditions under which such formation occurs Character of colonies formed in firm culture media

3 Capability of producing fermentation, putrefaction Character of decomposition products, volatile and other, formed in various nourishing media

4 Behavior toward oxygen at normal and altered pressures Behavior toward other gases

5 Effects of various temperatures on movements, germination, etc

6 Behavior in relation to light (phototonic properties) Behavior toward electricity

7 Behavior toward antiseptics and poisons

8 Are the forms under investigation found in a diseased organ or tissue What is the effect of inoculating animals of different orders and species with pure cultures If *virulent*, can the *virulence* be attenuated by exposure to air, to antiseptics, to heat, or by repeated "fractional" cultures Under what conditions Does the inoculation of attenuated germs have a *cumulative* effect if repeated at short intervals Does one inoculation give immunity towards a second made with virulent microbes

It will be seen that the character of investigation indicated by these questions could only be carried out by persons possessed of an abundance of time and money, and a willingness to devote both to such labors, or under the auspices and at the expense of the State or Federal Government In view of the brilliant results already attained by such investigations, *i e*, the protection furnished, by inoculation with the attenuated microbes, against the following diseases, viz small pox, hydrophobia, anthrax, yellow fever,(?) hog typhus and chicken cholera, it would seem a wise, humane and economical policy on the part of the State or Federal Government to encourage, by money appropriation, such investigations Among the probabilities which such investigations promise may be reckoned the prevention of many, perhaps all, the epidemic and contagious diseases to which man is heir.

Pasteur has astonished the world with his protective inoculations. His latest and most wonderful achievement is the immunity from hydrophobia which he claims is secured by inoculations with the attenuated virus.

Not less remarkable are the reputed discoveries of the yellow fever cryptococcus by Dr. Freire, of Rio Janeiro, and Dr. Carmona, of Mexico, and the immunity secured by inoculation with these organisms, as claimed by these gentlemen.

Other diseases and their specific microbes, notably diphtheria and phthisis, are under investigation by experienced bacteriologists, and in this day of marvels, we may expect soon to hear that these also are brought under the controlling influence of vaccination.

In the light of this experience, I feel secure in prophesying that within the next decade, dengue and many other contagious and infectious diseases will be as certainly prevented by inoculation as small pox now is. It remains to be seen what contribution of knowledge will be furnished by America to this promising system of preventive medicine.

MANAGEMENT OF THE SECUNDINES[1]

BY WM. H. WATHEN, M.D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN IN THE KENTUCKY SCHOOL OF MEDICINE, LOUISVILLE; GYNECOLOGIST TO THE LOUISVILLE CITY HOSPITAL.

One year ago, at the meeting of the American Medical Association in New Orleans, I read a paper in this Section on the "Treatment of the Membranes in Abortion and in Labor," but I do not offer an apology for reading another to-day.

Authorities in medicine do not agree as to the management of the third stage of abortion or of labor, and the subject is being extensively discussed in this country and in Europe. At the meeting of the British Medical Association at Belfast, in 1885, it attracted the attention of distinguished physicians of England, who failed to agree in many respects as to the best mode of treatment.

Felsenreich, in the January, 1886, number of the *Wiener Klinik*, and the great French obstetrician, Professor Pajot, in the February number of the *Archives de Tocologie*, wrote exhaustive papers on this subject, the former advocating and the latter opposing expectation. Most physicians who leave the expulsion of the membranes to nature are willing to remove the placenta when it is expelled from the uterus, but there are some who refuse to do so when it lies loose in the vagina. There are many who believe expectation is pernicious, and who remove the membranes from the uterus by expression, after the Credé or Dublin fashion, or draw upon the cord or edge of the placenta, or if the membranes adhere introduce the fingers or a hand into the uterus and separate and remove them.

Nor is our profession agreed as to the mechanism of the separation of the membranes from the uterus. It is argued that it may result from contraction or reduction of the placental area of the uterus, causing a retro-placental clot at the centre or at the periphery of the placenta, which completes the separation; or from a relative inequality in the contractile or retractile powers of the placenta and membranes, causing a separation in the trabecular structures connecting the decidua serotina and decidua vera to the uterine musculature. Neither is there a settled conviction as to whether the separation of the membranes occurs during or after the expulsion of the child. In an excellent paper on the "Anatomy and Relations of the Uterus," etc., in the *Edinburgh Medical Journal* of 1884, by Dr. Freeland Barbour, and from the investigations of Dr. Engelmann and others, it appears conclusive that, when the placenta is well formed, the musculature of the uterus is united to a compact layer of the decidua vera, decidua reflexa, decidua serotina, and the chorion, by a spongy or trellis-like arrangement of enlarged uterine glands and connective tissue.

The chorion and the amnion are seldom firmly united, though the union becomes more intimate toward the end of pregnancy, but at term the amnion may sometimes be easily dissected from the placenta. In the separation of the membranes the fundi of the glands with ciliated epithelium remain attached to the uterus and develop into new mucous membrane.

The formation of the placenta begins about the end of the second month, and it increases in size until the end of pregnancy, but in the latter months the union between the placenta and uterus becomes less intimate. Until the formation of the placenta the embryo is surrounded by the amnion, the chorion, the decidua reflexa, decidua vera, and decidua serotina. But the decidua vera and the decidua reflexa do not unite for several months after conception, and the amnion and the chorion are not in direct contact until between the end of the third and the end of the fifth month. It is important to remember this, for the fœtus may be expelled in an unbroken sac at any time before the sixth month—possibly in the sixth month—the placenta and other membranes being retained. In these cases the amnion has not reached the placenta, or is so loosely attached that it separates easily, the umbilical vessels being torn between the amnion and the placenta without disturbing the integrity of the amniotic sac.

We will divide the subject into the treatment of the third stage in abortions before the beginning of the third month, then the treatment of the third stage in abortions from the end of the second month to the end of the seventh, and finally the treatment of the third stage in premature labor and in labor at term.

Nature separates and expels the membranes by contraction and retraction, the placenta presenting at the os and coming away edgeways. This fact can be demonstrated in nearly every case of labor by grasping the placenta in the hand as it is forced through the neck of the uterus. It is possible that in fundal implantations of the placenta, it may sometimes present by its fœtal or amniotic surface with its long diameter in the os, or pulling on the cord may so invert the placenta as to cause the same abnormality

---

[1] Read in the Section on Obstetrics of the American Medical Association at St. Louis, May 4, 1886.

Hæmorrhage in the third stage of labor at any period of pregnancy is controlled by physiological contraction and retraction, and by the formation of trombi, or fibrinous coagula in the torn ends of the utero placental vessels, which is favored by contraction of the muscular fasciculi, which surround the vessels and contract their caliber

In abortion after the eighth week, in premature labor, and in labor, the membranes should be removed, whether separated or adherent, when they are not expelled within twenty to thirty minutes, and they should be removed sooner if we are not apprehensive of hæmorrhage, retention of the placenta, or of irregular contractions of the uterus If, in abortion, the woman shows symptoms of exhaustion or syncope, and bleeding continues, the shock in removing the membranes is not greater than that of tamponing the vagina

In the statistics of Dr Weir, of Copenhagen, expectation was followed by the retention of the decidual membranes in 1 78 per cent of cases, while in expression the per cent was 2 3 But in all other respects the results favor the immediate removal Post partum hæmorrhage occurred in expectation in 5 78 per cent of cases, and in expression the per cent was 2 3 In expectation manual removal of the placenta was necessary in 1 33 per cent of cases, and in expression in 64 per cent Secondary hæmorrhage followed expectation in 77 per cent of cases, and expression in 32 per cent

Mr T M Watt (Hovingham) in a large experience has seen no cases of post-partum hæmorrhage except in patients treated by expectation

James P Nevin, of Ballymoney, in over 200 midwifery cases saw but one case of post-partum hæmorrhage, that occurred in a patient where a midwife had allowed the placenta to be retained three hours, the woman died

Prof Pajot's statistics show that in 68 cases of retained placenta, which were left to nature, sixty resulted fatally, and in 102 similar cases, where the placenta was removed artificially and timely, only four died, though some of them were in extreme exhaustion from hæmorrhage when the operation was done

So long as a retained placenta is in the uterus or vagina the life of the woman is in jeopardy, and she may at any time be attacked with profuse hæmorrhage, septicæmia, and pelvic cellular or peritoneal inflammation When she has apparently recovered a placental or fibrinous polypus may form in the uterus, or she may suffer from subinvolution, hyperplasia etc Several women in Louisville have died within a few years from septicæmia, with pelvic peritoneal and cellular inflammation, or hæmorrhage, caused by a retained placenta

It may be urged that puerperal septicæmia is always exogenetic in its origin, but we know that a decomposed retained placenta is a prolific cause of the disease, and that its removal or disinfection is the only rational treatment In abortions before the end of the second month, if hæmorrhage ceases, no effort should be made to remove the membranes, unless they protrude into the vagina and can be taken away without introducing the fingers or instruments into the uterus These little membranes are generally innocuous, and will be separated and expelled without causing dangerous complications But if pregnancy has continued until a placenta has formed, expectation should not be practiced If in abortions after the second month the placenta is not expelled in twenty or thirty minutes, it should be removed, unless the woman is threatened with collapse or syncope from hæmorrhage, and when, from the absence of arterial pressure, hæmorrhage has stopped We may then wait until she has recovered from shock, or until there is decomposition of the membranes, or a recurrence of hæmorrhage

If the operation is done without delay the os will usually be dilated or dilatable, and a finger or fingers may be easily introduced into the uterus There is no instrument that can be substituted for the fingers, though it may sometimes be necessary to use other means to dilate the os Tents should, if possible, be avoided, and if the os cannot be dilated with the fingers, Ellinger's dilator, or my modification of Leanard's dilator, or Molesworth's dilator may be used The operation is seldom difficult, and with the patient anæsthetized, any part of, or the entire hand, may be introduced into the vagina, enabling us to examine all the uterine cavity with the fingers and to remove every part of the placenta and membrane Hæmorrhage will then stop, and there will probably be no other untoward symptom Of course our hands should be thoroughly disinfected, but this should be done in every case of delivery In premature labor and in labor at term, the placenta is more easily separated than in the earlier months, and is less frequently retained I fail to recognize a single fact to justify expectation in the management of the third stage of labor in the latter months of pregnancy, and while I do not believe it usually necessary to supplement or supplant nature in an effort to remove the membranes immediately after the child is born, I do not think the placenta should be left in the uterus more than twenty to thirty minutes, and it should be removed from the vagina immediately

The membrane can generally be removed by judicious expression during labor pains, but if this fail we may assist expression by introducing some fingers into the vagina and gently drawing upon the end of the folded placenta With a reasonable degree of care this treatment would neither cause septicæmia nor invert the uterus, and such accidents could only result from criminal ignorance or carelessness in the physician Unless uterine inertia follows the birth of the child there is no necessity for attempting expression until the uterus contracts in an effort to expel the placenta We should then follow the Crede method, being careful to express only during a contraction But it is always safe treatment to keep a hand over the uterus to see that it does not relax, and to encourage it to contract by kneading, massage, or expression, if it fail to do so otherwise

Credé reports that he removes the membranes in four and one half minutes after the child is borne with universally gratifying results, and Garrigues has also removed them in from ten to twenty minutes in 400 or 500 cases with excellent results But it is better to give more time for the membranes to separate and for coagula to form in the mouths of the vessels A little delay will do no harm, and will be less frequently followed by retention of decidual shreds If the placenta cannot be separated by expression then it should be separated carefully by a hand introduced into the uterus If the membranes are imprisoned in the uterus by contraction of the circular fibers of its lower segment or in its entirety, the neck should be dilated with the fingers, and the placenta separated and removed We should always have a hypodermic syringe charged with ergot for any emergency, but I no not believe that ergot should be given until the membranes are expelled

DISCUSSION

Dr Fuller, of Maine, after an experience of thirty-eight years, was in favor of prompt placental delivery, and congratulated the author of the paper upon his method of managing the secundines, and hoped that he would continue in his opposition to expectation He is usually able to express the placenta in cases of labor at term within five minutes after the expulsion of the child

In abortions the membranes can not be gotten away so readily, but they should be removed as soon as possible

Dr Willis P King, of Sedalia, Missouri, had seen 719 cases of labor at term and an unusually large number of abortions He removed the placenta promptly both in labor and in abortion, at term by Credé's method of expression, and in abortion, if the os is contracted, he practiced rapid dilatation with the finger or steel dilators When the finger, hand, or instruments were introduced into the uterus, and in lacerations of the genital tract, he used hot intrauterine injections of a solution of corrosive sublimate (1 4000) He had not seen a case of septic infection for several years

Dr C R Reed, of Middleport, Ohio, believed in immediate delivery of the placenta In nineteen cases out of twenty he was able to deliver the placenta by Credé's method and traction within five minutes after the expulsion of the child

Dr W W Potter, of Buffalo, New York, said that the terms uterine massage and Crede's method were sometimes employed as synonyms Suprapubic pressure was not Credé's method Credé, in 1853, said that your fingers must be forced behind the *corpus uteri*, the thumb over the anterior wall, and the placenta must be expressed just as the stone of a cherry is pinched out He did not believe in traction on the cord, but when the traction is slight no harm usually results He called attention to numerous sequelæ of abortion, and to the importance of effecting early evacuation of the *cavum uteri*

Dr John Morris, of Baltimore, advised the early removal of the placenta He never allowed the placenta to remain longer than twenty minutes after the birth of the child He distinguished between abortions the result of natural processes, and those induced by medicines and instruments In induced abortions, it is necessary to practice rigid antisepsis, and the prognosis is less favorable In so called "natural" abortion antiseptics are seldom required, and intrauterine irrigation is certainly not indicated He never gave ergot before the uterine cavity was emptied except in cases of "bleeders"

Dr French, of Minneapolis, desired to enter a protest against the indiscriminate use of intrauterine irrigation He had recently observed a fatal termination of a case in which the uterine cavity had been irrigated He now swabs out the *cavum uteri* when indicated with a mixture of iodoform, carbolic acid, and glycerine He had seen bad results follow vaginal irrigation with a corrosive sublimate solution, (1 2000) It was necessary to employ bichloride of mercury with extreme caution—if at all

---

CORNEAL ULCERS[1]

BY J W THOMPSON, M D ,

OF ST PAUL MINN

I shall occupy as little time as possible with that material relating to corneal ulcers which you can find and read at your leisure in any standard work on diseases of the eye Such works are numerous, and I dare say each one of you possesses one or more of them in your library, and that many of you are quite as conversant with the subject matter of them as I am They all relate nearly the same story, excepting little differences here and there of minor importance From them you have learned that ulceration of the cornea is the result of disturbed nutrition, and that this may be produced 1st, by a vitiated or improper state of the blood, 2d, by an irregular and deficient supply of the blood, 3d, by a disturbance or a loss of the nervous influence, and 4th, by an unnatural state of the cornea itself

It is especially rare, however, in practice to meet with cases that illustrate exclusively any of these pathological conditions except the one resulting from a disturbance or a loss of the nervous influence I have seen very meagre mention of this being assigned singly as a cause of the ulceration of the cornea in any of the numerous and well written text-books on the subject of ophthalmic surgery This may explain the fact that the nervous origin of corneal ulcers has been too frequently overlooked even by excellent observers But I think when the attention has been once directed to it, the symptoms are very plain, peculiar and characteristic, and will scarcely ever elude the attention of even a superficial observer The extent, occupying as I have seen it in a very few instances, the anterior surface of the globe and the conjunctival sac, the dusky, purplish appearance of the conjunctiva, the marked absence of the secretion, the dry and leathery appearance of the entire surface of the cornea, the absence of photophobia even when exposed to very bright light, the almost or quite complete anæsthesia of the cornea and the conjunctiva, and the entire absence of pain, form a picture the impression of which will scarcely be forgotten It is useless for me to speculate as to the exact nature and locality of the pathological conditions that give rise to this lesion of the eye It is a fact pretty conclusively demonstrated by experimental physiology, that the removal of the superior cervical sympathetic ganglion produces disturbance of the nutrition of the eye, and especially of the cornea But whether it be through the direct influence of the sympathetic or whether it be through the loss of the action of this nerve on the fifth or the trifacial, has not been very clearly determined It is, however, a well established fact that a division of the fifth does produce a very decided disturbance of the nutrition of the cornea, and the entire conjunctival sac

---

[1] Read before the Chippewa Valley Medical and Surgical Association at Eau Claire, Wis May 11 1886

In the case that I will relate I was unable to trace the origin of the nervous disturbance beyond the fifth, or tri-facial, since the case had been under progress for several days before my advice was sought I have selected this case out of the few that I have had an opportunity of seeing, because it is typical and furnishes a more pure and uncomplicated illustration of nervous disturbance in the production of corneal ulceration than any other that ever came under my observation The patient was a blacksmith by occupation, about 50 years of age For a period of nearly thirty years he had been a very industrious laborer, and all this time he had scarcely known a day of illness prior to the affliction for which he sought my advice He related that about a fortnight since, after a disturbed and restless sleep, he awakened in the morning with a pain in the left temple and side of the face, and slight dizziness He went to his shop, however, and continued to work uninterruptedly through the entire day The pain during the day became more tolerant at times, and he thought it to be only an ordinary attack of neuralgia, and that it would pass away under the influence of some domestic remedies which he would employ in the evening The next morning there was, in addition to the pain, a prickling sensation, and the dizziness was somewhat increased He felt some alarm about his condition, and sought the advice of his family physician, who gave the case a pretty thorough examination, and concluded that if it was neuralgia it was a very extraordinary case

In short, his symptoms continued to grow more alarming, and he soon began to observe some circumcorneal injection of the left eye, which was at first somewhat sensitive to the light This, with some slight increase, remained several days To follow his description, as the dizziness increased the pain diminished, and the face drew to the right side The facial paralysis was complete both as to motion and sensation The vision of the left eye began to be hazy The haziness increased rapidly, and when he consulted me he was scarcely able, with this eye, to determine the location of the window in my office The ocular tunic was quite vascular, with a considerable amount of chemosis about the cornea The entire conjunctiva presented a dry, glossy, purplish appearance The cornea was dry, leathery and nearly opaque In the centre there was a superficial ulcer with sharp, well defined edges There was entire absence of pain, and the anæsthesia was so complete that the finger could be rubbed all around in the conjunctival sac and over the cornea without producing any discomfort There was complete anæsthesia of all the parts supplied by the cutaneous nerves of the ophthalmic division of the fifth Of course, the affection of the eye for which he especially consulted me was quite beyond the resources of any known means of relief The destruction of vision in this eye became complete in a few days The paralysis, shortly after I saw the case, suddenly extended to other parts of the body, and soon terminated fatally An autopsy could not be obtained, and therefore the nature and origin of the brain lesion was left somewhat a subject of speculation

In connection with ulcers of the cornea I wish to call the attention of the profession to the use of a certain astringent, not for the purpose of extolling it but rather for the purpose of condemning it, and my experience with it teaches me that I cannot condemn it in terms too severely It is an astringent too that is recommended promiscuously in every form of conjunctivitis by all the modern works on diseases of the eye that I have been able to consult It is an old remedy and perhaps one of the most reliable astringents in the materia medica There is, perhaps, not a writer on this subject who has not spoken of it in terms of praise in conjunctivitis I have treated a great many cases of conjunctivitis, and it was a very common practice for me to combine this astringent with other astringents I regarded it as one of the safest and most reliable remedies that could be applied to an inflamed conjunctiva. Had it not been for a custom that I long since adopted in my ophthalmic practice of keeping a pretty complete record of my cases, I should, perhaps, have been employing the same old astringent to day with all the evil results it is capable of producing In all cases of conjunctivitis it is a very common custom to inspect the cornea closely before prescribing an astringent I was many times chagrined that within twenty four or forty eight hours after I had prescribed an astringent for a simple conjunctivitis, to find in the periphery of the cornea one or more minute ulcers It did not seem possible that they could have escaped my detection the day before There seemed to be something wrong, and I determined if possible to learn the cause I consulted my records very carefully and discovered that no case of ulceration had occurred in any of my cases of conjunctivitis where a simple astringent had been employed without alum, and that in every case where ulceration followed, alum had been prescribed singly or in combination with some of the other sulphates This seemed evidently the key-note to the ulceration I at once procured the fresh cornea of a hog's eye, cut it into small pieces and immersed them in a solution of alum of various strengths, and in every instance, at the end of twenty four or thirty-six hours, I found all the cementum of the cornea dissolved and nothing but the stroma and the anterior and the posterior elastic lamina remaining I have verified this a number of times

I have long since discarded alum, and ulcerations of the cornea in conjunctivitis have ceased to annoy me In those cases in which alum had been used without producing ulceration, the anterior elastic lamina had been intact, but if there had existed a minute break in the covering and the alum had had a free access to the proper substance of the cornea, it had invariably formed an ulcer Every valuable text-book on ophthalmology that I have been able to consult, recommends alum in high terms not only in simple conjunctivitis, but also in purulent and gonorrhœal This statement in regard to the action of alum may seem a little incredible to some, but I only ask them to subject it to a fair, impartial test, and I have no hesitancy in saying that their infidelity will be cured, and alum will no longer find a place in their ophthalmic therapeutics[1]

Herpes of the cornea frequently degenerates into chronic ulcers When this occurs in a child it is a very common practice to charge it to the account of scrofula or a scrofulous taint, and if the child should be a healthy subject, it is said to be due to a latent scrofulous predisposition The fact is, herpes that so frequently degenerates into small corneal ulcers is, as a rule, "not the localization of a blood disease," but rather the scrofulous appearances are the result of the herpes and ulceration The enlargement of the concatenated glands of the neck are, in a majority of cases, nothing more nor less than a reflection from the ulceration, just as a "felon on the finger may produce an enlargement of the axillary glands" These little cavities or ulcers formed from the degeneration of the herpes, under a proper treatment, fill up with transparent cornea, and every trace of them may be lost Sometimes the newly formed corneal tissue is cloudy at first, but subsequently clears and becomes entirely transparent Occasionally, however, I have seen them fill with a kind of chalky material that becomes a fixture and remains through life

Pathology teaches that in the healing of corneal ulcers new cells must be formed to take the place of those that have been detached and destroyed It has been somewhat conclusively shown that the new cells are derived from a finely granular blastema which changes into protoplasm, and that in this protoplasm new cells arise by a process of free cell formation "Again, Alexander Rollett maintains that this corneal protoplasm is contractile He arrives at this conclusion by experiments upon the fresh cornea of a frog He submitted it to the action of electrical currents Before the passage of the current the corneal tissue seems to be homogeneous, or with only a few radiated corneal corpuscles scattered through it Immediately after the excitation, elongated and sinuous, fusiform, elliptical, and round, clear figures make their appearance These are nothing but the optical expression of longitudinal, oblique or transverse sections of the communicating system of lacunæ traversing the cornea, the dilated nodal points of which are occupied by the nucleated, central portion of the radiating and contractile corneal corpuscles The contours of this canalicular system are rendered visible by the electrical current, because it occasions the retraction of the corneal corpuscles from the walls of the cavities in which they are contained In all such cases the nucleated masses of protoplasm may be seen surrounded by a transparent area, and with small spikes projecting from its surface, which are the retracted arms The appearances described vanish if the shock is not repeated They can, however, be made to appear again if the current is retransmitted"

309 Wabasha St , cor 3d, St Paul, Minn

MEDICAL PROGRESS

Electrolysis in the Treatment of Stricture—At the meeting of the Royal Medical and Chirurgical Society on May 25, Dr W E Steavenson and Mr W Bruce Clarke read a paper on this subject The more extensive use made of electrolysis in surgery and gynæcology abroad, and especially its successful employment in the treatment of stricture of the urethra, had induced the authors to undertake a series of observations to test the accuracy of the reports which had reached this country Their results bore out in every particular the results of success they had received from America Electricity, on account of its power of splitting up compounds into their chemical elements, could be used as a substitute for ordinary caustics to the human body It could be used with especial advantage to parts difficult of access, such as the male urethra and the uterine cervical canal, and it could also be applied to these and other regions where the application of other caustics was attended with a certain amount of danger Its effects could be limited to the points touched by the electrode The caustic effect could be arrested, or not commenced until the applicator, in the form of the electrode, was *in situ*, and the duration and extent of the caustic action were entirely under the control of the will of the operator The treatment of stricture of the urethra by this method was the most simple, and perhaps the most striking in its results, and had, therefore, been selected as the first on which to collect and report observations In this paper, the details were given of six cases of stricture of the urethra treated by electrolysis, the *modus operandi* was explained, the steps of the operation were given, and the advantages of this method of procedure were summed up There was usually no bleeding If hæmorrhage did occur, it was accidental, and usually showed that too strong a current had been used, no anæsthetic was required If pain or discomfort were produced, it was trifling The patient could, in the case of slight strictures, pursue his ordinary occupation during the period of treatment No antiseptics were required, as the process itself was aseptic In the majority of cases, there was no contraction or return of the stricture Eschars produced by caustic alkalies were said to heal with less contraction than wounds produced in any other, and electrolysis with the negative pole of a battery was a means of applying the same destructive action as was caused by the caustic alkalies to parts difficult of access in a way which was impossible by any other method Probably, other chemical decompositions and combinations took place at the negative pole besides those characteristic of the caustic alkalies, but they had not, up to the present time, been thoroughly made out

---

[1] Those who may have observed this peculiar action of alum on the cornea will confer a favor on the author by communicating the fact either by letter or otherwise

Mr Berkeley Hill was much interested by the paper, but was sorry to say that he could not find the conclusions of the authors quite satisfactory The cases had been related, after the manner of the American writers on this subject, without enough detail as to the size, nature, and position of the stricture One case had suffered from stricture, more or less for twenty years, he had often been relieved for a time by ordinary dilatation, and then had slowly relapsed The relief given by Dr Steavenson and Mr Bruce Clarke dated only from about eight months ago, and he expected that his discomforts would return, at any rate, at present, there was no proof of a cure It was universally admitted that, by patient pressure, a larger catheter could be passed, but he thought the authors had hardly made due allowance for this in their account of the increased size of the electrical bougies passed, which might perhaps be due to patience as much as electricity He had himself carefully considered the American cases that Dr Newman had published, and had followed his plan in treating one case of his own There was stricture two inches and a half from the meatus, probably behind an old urethral abscess, he could see clearly with an endoscope, which he was sorry the authors had not used He passed a needle, which formed one pole of the electric circuit, into the scar-tissue, and could see, with the endoscope, that nothing more happened than the occasional liberation of a bubble The patient felt no pain at all, except on making and breaking the current, he measured the currents strength by the patient's feelings After fifteen minutes application of the current, he found the stricture enlarged from 19 to 20 of the French scale After further treatment, in the same manner, it gradually contracted from 20 to 16, and as cure semed very unlikely by such a process, he resorted to other methods, and found no difficulty in widening it

Mr F Swinford Edwards had treated a case, with the help of Dr Steavenson He had first seen the patient two and a half years ago, when he found three strictures, two penile and one subpubic, of size No 12 (French), these he gradually dilated to No 25 For two years, the patient was lost sight of, and then returned with three strictures, distant ½ inch, 4 inches, and 5½ inches from the meatus, admitting only No 4 (French) Dr Steavenson applied a No 3 electrode and current of from 5 to 8 milliamperes, this did not pass, but the flow of urine was improved, and a few days later, a bougie, No 10, could be passed, and, after a few weeks under electrical treat ment, a bougie No 26 steel or No 28 pewter, could be admitted Whether it was to be called strictly a cure or not, it was certainly satisfactory in enabling the patient to get about and to do his work, and his case was a bad one, which would otherwise have needed treatment with an Otis's dilating urethrotome He hoped the treatment would be further investigated in hospital cases

Mr G Buckston Browne thoroughly agreed that it would be a very good thing if the practised hands of the seniors in the profession could be brought to try this method, for there was hardly any point in which more experience was needed than in estimating and accurately diagnosing stricture He was inclined himself to attribute the results embodied in the paper to the dilatation, not to the electricity, else why was it found advisable to use gradually larger and larger electrodes? Even pressure, without passage of a catheter, often did much to facilitate the passage of urine He had considered Dr Newman's cases with some care, and could not help calling attention to one remarkable point in them, that they were, every one of them, successful

Dr Steavenson was not familiar with the endoscope which Mr Berkeley had shown In Mr Hill's cases, he understood there had been puncture, and he certainly was not surprised, that contraction had followed They had used bougies, of gradually increasing size, to keep in contact with the walls of the urethra

Mr Bruce Clarke said he had been quite prepared to meet the two chief objections that had been urged, that the cases were not really of organic stricture, and that they were not really cured As to cure, he was bound to admit that the operations had been performed last August, and not treated since, they were under observation, and had not relapsed, only time could prove their ultimate cure As to the point that they were spasmodic strictures, he could not admit it, in one of the cases, there had been extravasation of urine, at first, nothing could be introduced, but after electrical treatment, he could pass No 11 (English), and that was a success as great as any after a cutting operation

The British Medical Journal, also says editorially Interest in the subject was first aroused by one of the daring attempts of American surgery, made by Dr R Newman, of New York, who published, about eighteen months ago, *Tabular Statistics of 100 Cases of Urethral Stricture treated by Electrolysis, without Relapse* It would have appealed, perhaps, even more strongly to those who believe in the fallibility of human nature, if there had been one or two relapses The fashion of operating admits of many small variations, but the essential points are, that one pole of the battery shall be of metal, and in contact with the surface of the stricture, and the other widely spread out by means of a pad over a considerable surface of the body, the back or elsewhere, and that between these poles a current of considerable strength should be passed It is found most successful and least uncomfortable that the negative pole should be in contact with the urethra, the positive, with the body A current may be passed which is strong enough to act upon the stricture without giving any discomfort, except, perhaps, at the moments of making and breaking What the exact action of the current upon the cicatricial tissue may be, we are hardly in a position to say, though the actual watching of the process by means of an endoscope, as practised once by Mr Berkeley Hill, may throw more light upon it It is covered, at present, by the word "electrolysis," of which, when applied to fibrous tissues, we must admit that the limits are somewhat indistinct At any rate, it is alleged that not only does the resistance of the stricture give way, but that more or less of the tissue which forms it is turned into a slimy mass of broken down epithelium, and so disappears, *without leaving a contracting cicatrix* The *à priori* impression is certainly strong that, where tissue has disappeared, there must be a cicatrix, and that, if there is a cicatrix, it must contract sooner or later Those who have practised electrolysis will gain a much more attentive hearing and a more zealous following when they can show a longer maintenance of good results than the eight months which have elapsed since Mr Bruce Clark's operations When the malady is chronic, it naturally needs a long time to judge of the cure, but, at the same time, the habits of scars, due to different causes, are known to vary greatly in contraction, and it is possible enough that there may be less contraction after electrical action than any other, even than those from caustic alkalies And, further, we are not yet experienced enough to assert how completely similar or dissimilar to an ordinary cicatrix this process of electrolysis may be That it deserves trial from the older and most skilled hands, there would seem to us little doubt, and we can imagine it most convenient that the electrical necessaries should be managed by the younger students of that somewhat difficult class of instruments

BERI-BERI —An industrous investigation of some of the circulatory conditions that obtain in the Japanese "kakké" or beri-beri has been undertaken by DR WALLACE TAYLOR, with the production of some valuable results In none of the cases was there organic disease of the heart or arteries, and no functional derangement other than that attributed to the influence of the "kakké" Sphygmographic tracings revealed a very sudden and high upstroke, with precipitous descent from the apex of the percussion wave and marked dicrotism The first deviation of the circulatory system in kakké from the normal is one of cardiac excitement There is also diminished tension, due to loss of arterial tone The chief causes of danger in the acute disease are found in the impaired condition of the heart and enfeebled circulation The extent, however, to which the heart and vaso-motor system are affected in the disease is liable to relatively large changes Dr Taylor considers that all the conditions of the heart and arteries can be explained by the action of the *materies morbi* of kakké upon certain portions of the cerebro spinal nerves and sympathetic system Age exercises considerable influence over the occurrence of the disease, which is most common between 16 and 28 years of age One attack of kakké appears to render the patient more liable to subsequent affection Women are much less likely to be affected than men Though the female sex in general enjoy a marked immunity, yet in the puerperal state they are very liable to take the disease It is but seldom that traces of albumen are found in the urine Partial paralysis of the muscular walls of the bladder is occasionally to be met with No mention is made of the multiple neuritis, of which so much has lately been written in England —*Lancet*, May 8, 1886

PARALYSIS OF LARYNGEAL MUSCLES —The generalization so strongly upheld by DR FELIX SEMON, that the abductor muscles of the larynx are more prone to paralysis than the adductors does not carry us a great way, but it is very useful as a step to further knowledge, A general cause acting on the recurrent laryngeal nerves appears always to paralyze or weaken the abductor muscles before or more than the adductor M Charazac records a case in the *Revue Mensuelle de Laryngologie* of cystic goitre associated with unilateral paralysis of the adductor muscles of the larynx consecutive to compression of the right recurrent laryngeal nerve During expiration the larynx appeared to be perfectly healthy, the vocal cords left the middle line in a natural manner, so that the glottis presented its normal triangular outline But during phonation the left vocal cord closed up to the mesial line in good form, but the right did not approach its fellow We think M Charazac lays too much stress on his single observation, supposing that to have been a true one, and not to be explained by other causes than the one to which it is attributed So far the generalization to which we above referred seems to have been confirmed and strengthened by numerous and carefully observed cases —*Lancet*, May 22, 1886

FALSE JOINT FROM A FRACTURE IN INFANCY —M BERGER recently showed a very interesting specimen at a meeting of the Sociéte de Chirurgie of Paris It consisted of the lower limb of a man 57 years of age, who had received a fracture of both bones of the leg when only nine months old This was followed by the formation of a false joint which prevented the man from walking The upper fragments of the tibia, and fibula were rounded off, and fitted into cup-like depressions on the lower fragments The adjacent surfaces were eburnated and coated with dense granulation tissue (not cartilage), and were held together by a capsular ligament continuous with the periosteum and lined by a true synovial membrane The knee and ankle were not ankylosed, as is often the case in such conditions The whole limb was undeveloped, as the following measurements on the two sides show Length of foot 18 centim as compared with 24 centim , length of patella 5 0 centim , instead of 6 0 centim , length of femur 36 centim , as against 39 centim The muscles were not degenerated, the nerves to the naked eye were healthy, but the skin over the toes was the seat of anæsthesia and local asphyxia. The question raised by M Berger was, whether these developmental changes were the results of the "false joint," or whether they and it were both due to one obscure trophic affection —*Lancet*, May 8, 1886

THE
Journal of the American Medical Association
PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM, IN ADVANCE $5 00
SINGLE COPIES 10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET,
CHICAGO ILLINOIS

SATURDAY, JUNE 19, 1886

THE BLOOD PLAQUES AND COAGULATION

In the last number of THE JOURNAL we attempted to give some idea of the blood-plaque, and showed that while there is very strong evidence that it is an independent element of the blood, there are also strong reasons for believing that it is what Hayem terms an hæmotoblast, or young red corpuscle But which of the theories be held matters but little in considering the relation of the plaque to the process of coagulation This however, is best prefaced by some account of the histology of the formation of fibrin, and its relation to the histological elements of the blood, including the blood plaques

In the study of the formation of fibrin under the microscope it has long been noticed that the fibrin filaments spread out as rather distinct rays from the minute aggregations known as Schultze's granular masses This was noticed by Schultze, and by Ranvier in 1873, who regarded them as centres of coagulation, and also by Riess, Hayem, Leube, Bizzozero and others Ranvier, Davidson, Bizzozero and Halla think that there is a distinct and direct connection between the fibrin-threads and the granular masses but Schultze thinks that the threads do not proceed from the masses, but pass over or through them Heyl, having observed that in Bizzozero's fluid the number of granular masses increases as the leucocytes decrease, and that both the granular masses and leucocytes stain with methyl violet, has drawn the unwarranted conclusion that, on the assumption that the leucocytes break down during coagulation, the granular masses are derived from the leucocytes This view has received the support of Hlava and Riess, but is denied emphatically by Osler and Laker, and Lowit, after a careful study of the coagulation of lymph under the microscope, has found nothing that can be regarded as leucocyte detritus The generally accepted view as to the granular masses, then, is that they are formed by the plaques

In the very careful study made by Kemp he found that the formation of the granular masses by the plaques may be seen in the following manner The finger is pricked and a good-sized drop of blood is squeezed out This is taken immediately upon a cover-slip, and then as quickly as possible most of it is washed off by a jet of a 75 per cent NaCl solution from a wash bottle The cover-slip is now placed on a slide, and transferred to the microscopic stage as quickly as possible The plaques have the property of sticking to the slip, while the other elements are easily washed away by the jet, so that upon examination the whole field will be seen to be filled with plaques, some of them isolated, but most of them grouped in masses consisting of from two or three to a dozen or more They are now not pale and homogeneous, with a symmetrical outline, but appear glistening and granular, and their contour, instead of being regularly oval or circular, has become jagged These changes are the more marked the longer the time which has elapsed before the preparation is observed, and they may be seen to take place step by step while the observer watches the preparation The plaques continue to undergo changes in form, until finally when they are grouped together only a granular mass is found, and the individual plaques can no longer be distinguished clearly "*Pari passu* with these changes processes are seen which run out from the granular masses, and when coagulation sets in these processes are nearly always found to be continuous with threads of fibrin The threads of fibrin are sometimes deposited as long needle-shaped crystalloids which are often seen lying free in the field, and not connected with the granular masses, but the greater number are formed most thickly around these masses, from which they often radiate as centres"

Kemp has found that when the blood-plasma is very much diluted but little fibrin is formed "Under these circumstances the field is comparatively clear, and it can then be seen that no fibrin proceeds from the leucocytes, but all comes from the plaques, or is deposited freely in the field" Hayem and Schimmelbusch have pointed out that fibrin may be formed elsewhere than around the plaques, and this view has been confirmed by Osler, though Bizzozero has stated that fibrin is deposited around the plaques and nowhere else Osler says in his third lecture that it may be noticed that fibrin appears quite independently of the plaques, particularly if healthy blood be examined in which plaques are not very numerous. When there is an abundant formation of fibrin the network of threads is seen all over the field, and every spot is full of fibrin, but when the fibrin is not abundant it will almost always be seen that the fibrin is thickest in the vicinity of the masses of plaques. "Even in preparations where the fibrin is sparingly formed, the threads are deposited elsewhere than around the granular masses, and occasionally, though rarely, I have found granular masses around which the fibrin did not appear to lie more thickly than in the clear field. The fact that nearly always the fibrin is deposited most thickly around the granular masses, even radiating from them as centres, while interesting and significant, is not conclusive proof that the plaques are connected with coagulation, for the same adhesive property of the plaques which makes them adhere to each other, may also cause the threads of fibrin to stick fast as they separate out from the medium around them. This seems all the more probable when we consider that the fibrin as well as the plaques is sticky and adheres to the glass" (Kemp). The fact that in preparations in which the clot is scanty the fibrin is deposited more thickly in the vicinity of the masses of plaques may possibly be due to the plaques giving up something which causes or hastens coagulation, and that in dilute solutions this substance is more abundant in the vicinity of the granular masses than elsewhere.

Laker has taken the ground that the fibrin-threads are folds of a membrane which he calls the primary fibrin membrane, a view almost identical with that taken by Virchow in 1856. Kemp concludes that what Laker describes as a membrane is a layer of the homogeneous substance described by Virchow, Rindfleisch and Hermann, which is essentially of the same composition as fibrin, and from which the fibrin threads are formed by a process very closely resembling crystallization, if not identical with it. Hermann thinks that the threads are formed by a process which closely resembles crystallization, and Schimmelbusch insists most positively that the formation of fibrin-threads is a true crystallization process, nor does he believe that there is a previous stage, either homogeneous or granular. Hayem, though not believing in the fibrinous character of the plaques, compares the formation of fibrin to a sort of crystallization starting from small crystals already formed. Kemp says: The definite form which the fibrin threads take, especially the typical needle shaped form of the threads when deposited isolated in scanty clot, speaks strongly in favor of a crystallization, while the subsequent toughening and contraction of the threads show a clear resemblance to the coagulation of certain proteids, notably myosin. In fact, it appears that we have in blood an interesting process which may be regarded as intermediate, in a certain sense, between a true crystallization on the one hand, and the coagulation of certain proteids, as myosin, etc., on the other. Hence Kemp thinks it evident that there is no histological connection between the plaques and fibrin, so that if the former are involved at all in coagulation the connection must be a chemical one, in other words, the plaques must give up something to the plasma at the same time that they break down. But the strongest evidence of a connection between the plaques and coagulation is derived from facts pointed out by Hayem, Bizzozero, Lavdovsky, Halla and Ferraro that fibrin is formed *pari passu* with the breaking down of the plaques, and that reagents or conditions which retard the breaking down of the plaques, retard to *precisely the same extent* the formation of fibrin, and reagents which *preserve the plaques prevent the formation of fibrin altogether*. Kemp's observations, so far as completed, confirm these facts in every respect.

The question now arises, what part do the plaques play in the process of coagulation? Hayem and Bizzozero think that their part is to furnish something essential to coagulation, and they agree that *ferment* is in all probability the agent in question. Now, in some experiments Kemp noticed that blood flowing through a dirty tube coagulated more quickly than in flowing through a clean glass tube, and he thinks that this would seem to show that in passing through the dirty tube the blood took up something which brought about coagulation before the plaques broke down, but which is also formed later by the plaques when they break down. And from what we know of coagulation at the present time, he says, it seems probable that the agent in fibrin-formation that would be more likely to act in this manner is the *ferment*. Osler has examined the relation of the blood-plaque to coagulation experimentally, and his results are very interesting. If an ordinary ligature, partly teased out, be passed through the femoral vein of a dog and allowed to remain for five or six minutes, or less, the threads become coated with the plaques, and the same coating of plaques may be obtained by whipping freshly drawn blood with a bunch of threads, as in Bizzozero's experiment. The threads are then carefully washed in a saline solution, by which the red corpuscles are removed. If the threads be then dipped into a coagulable solution clotting occurs

But Rauschenbach criticizes this experiment by saying that the threads may have absorbed ferment which was not washed away, and that the coagulable fluid used by Bizzozero is only a test for free ferment Kemp thinks that the first objection is valid, but Osler replies to it by saying that the chief elements in the clot are plaques, and the greater the number of the plaques the denser the coagulum To the second Kemp replies that by granting it we exclude the leucocytes adhering to the threads from a share in the formation of the ferment, if any is formed by what does adhere to the threads It then remains to explain why the time of coagulation should depend upon the number of plaques, and the experiment remains of value as offering strong support to the theory that the ferment may be derived from the plaques

But there is further and more conclusive evidence of the participation of the plaques in the process of coagulation, as afforded by the experimental production of thrombi So far as completed Kemp's work in this direction tends to confirm the results of Osler, Bizzozero, Hayem, Ferraro and Lubnitzky, who find that the white thrombus is not composed of leucocytes but of plaques, that is due to an agglomeration of plaques around a lesion in the vascular wall, or a foreign body introduced into the vessel The plaques are the elements which first settle on the edge of the wounded vessel, and form the basis of the clot, as shown by Eberth, though he still holds to the idea that the leucocytes play an important part in the formation of white thrombi Osler contends that they are composed chiefly of plaques, and that their further development results from the disintegration of the plaques, that a granular or stroma-fibrin and a fibrillar or plasma-fibrin must be recognized, the former being identical with Weigert's coagulation necrosis

The conclusions drawn by Kemp regarding the relation of plaques to coagulation are 1 When the blood is drawn the plaques break down almost immediately This is not true of any other element of the blood 2 The breaking down of the plaques is intimately connected, in times at least, with the clotting of the blood 3 The connection between the breaking down of the plaques and the coagulation of the blood is not histological, but chemical—*i e*, the plaques appear to give up a soluble substance which is active in coagulation 4 The active agent in question is most probably *fibrin-ferment* 5 Fibrin is deposited histologically independent of any of the cellular elements of the blood 6 When the clot is very scant fibrin is deposited as long, needle shaped, crystal-like bodies

"METAPHYSICIANS," "FAITH HEALERS," AND THE ILLINOIS PRACTICE ACT

The Illinois Practice Act is a law, coming under the police power of the State, and is maintained on the theory that the law is enacted for the preservation of the public health from the experiments of quacks and unqualified persons, and, says Attorney General McCartney, of Illinois, it must be construed as an absolute prohibition against the practice of medicine in this State, except under the conditions specified in the Act These conditions are that the person practising, if he practises under a diploma from a medical college—shall have a certificate from the Board of Health of the State that his diploma is genuine, or if he is not practising under a diploma, that he has been examined and found duly qualified by the State Board of Health, or that he is a commissioned surgeon of the United States Army or Navy, or that he had been practising medicine ten years in the State of Illinois prior to the first day of July, 1877, or that he was a student prescribing under the supervision of preceptors, or was performing gratuitous services in a case of emergency These are the conditions, and these alone, under which a person may "profess publicly to be a physician and to prescribe for the sick, or to append to his name the letters of M D"

Now what is it to practise medicine? Is it necessary that the person practising shall administer drugs, or that he shall perform a surgical operation? Would any court in the land limit the term to this definition? Does not "practising medicine" mean that the person practising professes to cure disease, or to assist in the cure of disease or bodily ailments? We may easily suppose the case (for such a one is on record) in which a distinguished consulting physician continues in practice for several years without prescribing a dose of medicine once in two years, or longer This man is certainly practising medicine And inasmuch as the "metaphysicians," "faith-healers" profess to cure disease and bodily ailments, and in some cases append the letters M D to their names, though signifying on their signs that they are "metaphysicians" or "faith-healers," are they not indictable under the Illinois Practice Act for practising medicine without licenses? At least one of these people has the letters M D appended to his name on his sign in Chicago From long custom the public understands that those letters mean Doctor of Medicine, though the person misappropriating them may say that they mean "Money Down," "Milk Diet," or "Medicine Disgusts"

The Secretary of the Illinois State Board of Health, in response to a question as to the legality of these that it may be noticed that fibrin appears quite independently of the plaques, particularly if healthy blood be examined in which plaques are not very numerous. When there is an abundant formation of fibrin the network of threads is seen all over the field, and every spot is full of fibrin, but when the fibrin is not abundant it will almost always be seen that the fibrin is thickest in the vicinity of the masses of plaques. "Even in preparations where the fibrin is sparingly formed, the threads are deposited elsewhere than around the granular masses, and occasionally, though rarely, I have found granular masses around which the fibrin did not appear to lie more thickly than in the clear field. The fact that nearly always the fibrin is deposited most thickly around the granular masses, even radiating from them as centres, while interesting and significant, is not conclusive proof that the plaques are connected with coagulation, for the same adhesive property of the plaques which makes them adhere to each other, may also cause the threads of fibrin to stick fast as they separate out from the medium around them. This seems all the more probable when we consider that the fibrin as well as the plaques is sticky and adheres to the glass" (Kemp). The fact that in preparations in which the clot is scanty the fibrin is deposited more thickly in the vicinity of the masses of plaques may possibly be due to the plaques giving up something which causes or hastens coagulation, and that in dilute solutions this substance is more abundant in the vicinity of the granular masses than elsewhere.

Laker has taken the ground that the fibrin threads are folds of a membrane which he calls the primary fibrin membrane, a view almost identical with that taken by Virchow in 1856. Kemp concludes that what Laker describes as a membrane is a layer of the homogeneous substance described by Virchow, Rindfleisch and Hermann, which is essentially of the same composition as fibrin, and from which the fibrin threads are formed by a process very closely resembling crystallization, if not identical with it. Hermann thinks that the threads are formed by a process which closely resembles crystallization, and Schimmelbusch insists most positively that the formation of fibrin-threads is a true crystallization process, nor does he believe that there is a previous stage, either homogeneous or granular. Hayem, though not believing in the fibrinous character of the plaques, compares the formation of fibrin to a sort of crystallization starting from small crystals already formed. Kemp says The definite form which the fibrin threads take, especially the typical needle shaped form of the threads when deposited isolated in scanty clot, speaks strongly in favor of a crystallization, while the subsequent toughening and contraction of the threads show a clear resemblance to the coagulation of certain proteids, notably myosin. In fact, it appears that we have in blood an interesting process which may be regarded as intermediate, in a certain sense, between a true crystallization on the one hand, and the coagulation of certain proteids, as myosin, etc, on the other. Hence Kemp thinks it evident that there is no histological connection between the plaques and fibrin, so that if the former are involved at all in coagulation the connection must be a chemical one, in other words, the plaques must give up something to the plasma at the same time that they break down. But the strongest evidence of a connection between the plaques and coagulation is derived from facts pointed out by Hayem, Bizzozero, Lavdovsky, Halla and Ferraro that fibrin is formed *pari passu* with the breaking down of the plaques, and that reagents or conditions which retard the breaking down of the plaques, retard to *precisely the same extent* the formation of fibrin, and reagents which *preserve the plaques prevent the formation of fibrin altogether*. Kemp's observations, so far as completed, confirm these facts in every respect.

The question now arises, what part do the plaques play in the process of coagulation? Hayem and Bizzozero think that their part is to furnish something essential to coagulation, and they agree that *ferment* is in all probability the agent in question. Now, in some experiments Kemp noticed that blood flowing through a dirty tube coagulated more quickly than in flowing through a clean glass tube, and he thinks that this would seem to show that in passing through the dirty tube the blood took up something which brought about coagulation before the plaques broke down, but which is also formed later by the plaques when they break down. And from what we know of coagulation at the present time, he says, it seems probable that the agent in fibrin formation that would be more likely to act in this manner is the *ferment*. Osler has examined the relation of the blood-plaque to coagulation experimentally, and his results are very interesting. If an ordinary ligature, partly teased out, be passed through the femoral vein of a dog and allowed to remain for five or six minutes, or less, the threads become coated with the plaques, and the same coating of plaques may be obtained by whipping freshly drawn blood with a bunch of threads, as in Bizzozero's experiment. The threads are then carefully washed in a saline solution, by which the red corpuscles are removed. If the threads be then dipped into a coagulable solution clotting occurs

But Rauschenbach criticizes this experiment by saying that the threads may have absorbed ferment which was not washed away, and that the coagulable fluid used by Bizzozero is only a test for free ferment Kemp thinks that the first objection is valid, but Osler replies to it by saying that the chief elements in the clot are plaques, and the greater the number of the plaques the denser the coagulum To the second Kemp replies that by granting it we exclude the leucocytes adhering to the threads from a share in the formation of the ferment, if any is formed by what does adhere to the threads It then remains to explain why the time of coagulation should depend upon the number of plaques, and the experiment remains of value as offering strong support to the theory that the ferment may be derived from the plaques

But there is further and more conclusive evidence of the participation of the plaques in the process of coagulation, as afforded by the experimental production of thrombi So far as completed Kemp's work in this direction tends to confirm the results of Osler, Bizzozero, Hayem, Ferraro and Lubnitzky, who find that the white thrombus is not composed of leucocytes but of plaques, that is due to an agglomeration of plaques around a lesion in the vascular wall, or a foreign body introduced into the vessel The plaques are the elements which first settle on the edge of the wounded vessel, and form the basis of the clot, as shown by Eberth, though he still holds to the idea that the leucocytes play an important part in the formation of white thrombi Osler contends that they are composed chiefly of plaques, and that their further development results from the disintegration of the plaques, that a granular or stroma-fibrin and a fibrillar or plasma fibrin must be recognized, the former being identical with Weigert's coagulation necrosis

The conclusions drawn by Kemp regarding the relation of plaques to coagulation are 1 When the blood is drawn the plaques break down almost immediately This is not true of any other element of the blood 2 The breaking down of the plaques is intimately connected, in times at least, with the clotting of the blood 3 The connection between the breaking down of the plaques and the coagulation of the blood is not histological, but chemical—*i e*, the plaques appear to give up a soluble substance which is active in coagulation 4 The active agent in question is most probably *fibrin-ferment* 5 Fibrin is deposited histologically independent of any of the cellular elements of the blood 6 When the clot is very scant fibrin is deposited as long, needle shaped, crystal-like bodies

"METAPHYSICIANS," "FAITH HEALERS," AND THE ILLINOIS PRACTICE ACT

The Illinois Practice Act is a law, coming under the police power of the State, and is maintained on the theory that the law is enacted for the preservation of the public health from the experiments of quacks and unqualified persons, and, says Attorney General McCartney, of Illinois, it must be construed as an absolute prohibition against the practice of medicine in this State, except under the conditions specified in the Act These conditions are that the person practising, if he practises under a diploma from a medical college—shall have a certificate from the Board of Health of the State that his diploma is genuine, or if he is not practising under a diploma, that he has been examined and found duly qualified by the State Board of Health, or that he is a commissioned surgeon of the United States Army or Navy, or that he had been practising medicine ten years in the State of Illinois prior to the first day of July, 1877, or that he was a student prescribing under the supervision of preceptors, or was performing gratuitous services in a case of emergency These are the conditions, and these alone, under which a person may "profess publicly to be a physician and to prescribe for the sick, or to append to his name the letters of M D"

Now what is it to practise medicine? Is it necessary that the person practising shall administer drugs, or that he shall perform a surgical operation? Would any court in the land limit the term to this definition? Does not "practising medicine" mean that the person practising professes to cure disease, or to assist in the cure of disease or bodily ailments? We may easily suppose the case (for such a one is on record) in which a distinguished consulting physician continues in practice for several years without prescribing a dose of medicine once in two years, or longer This man is certainly practising medicine And inasmuch as the "metaphysicians," "faith-healers" profess to cure disease and bodily ailments, and in some cases append the letters M D to their names, though signifying on their signs that they are "metaphysicians" or "faith-healers," are they not indictable under the Illinois Practice Act for practising medicine without licenses? At least one of these people has the letters M D appended to his name on his sign in Chicago From long custom the public understands that those letters mean Doctor of Medicine, though the person misappropriating them may say that they mean "Money Down," "Milk Diet," or "Medicine Disgusts"

The Secretary of the Illinois State Board of Health, in response to a question as to the legality of these people practising, says that he doubts if they could be prosecuted, but that he thinks that they could not collect fees should the person receiving the "treatment" decline to pay It seems, however, that the only ground upon which a court could refuse to enter judgment for the plaintiff in such a case would be that the plaintiff was practising medicine without a license, and therefore could not collect fees by law It is barely possible that a court might refuse to give judgment on account of "want of consideration," but this is only barely possible, and the plaintiff could almost certainly carry the case up on error But should the decision be as first suggested, the question at once arises If payment may be refused on account of illegal practice, why cannot the plaintiff be indicted for this illegal practice?

As evidence of the correctness of our definition of "practising medicine," we may cite the case of Bibber vs Simpson (59 Me , 181), in which suit was instituted for $51 for services rendered the defendants intestate, at his special request, by the plaintiff as a clairvoyant It appeared from the plaintiff's testimony that she professed to be a clairvoyant, that when asked to examine the patient she saw the disease and felt as the patient did, that sittings or séances were of different durations, from one-quarter to one-half of an hour each, that she did not pretend to understand anatomy or medicine, that she was requested by the intestate to visit him and render him professional services, and did so as by the account, that she helped him, but he died from taking cold, acquainted him with the prices, and he agreed to pay them, but never did so Appleton, C J , in deciding the case, said "The services rendered are medical in their character True, the plaintiff does not call herself a physician, but she visits her sick patients, examines their condition, determines the nature of the disease and prescribes the remedies deemed by her most appropriate Whether the plaintiff calls herself a medical clairvoyant, or a clairvoyant physician, or a clear-seeing physician, matters little, assuredly, such services as the plaintiff claims to have rendered, purport to be, and are to be deemed, medical "

Not only must the services rendered by these parties be deemed medical, but it must be held that the parties rendering these services publicly profess to be physicians, since a physician is one who claims to heal the sick And, says Attorney General McCartney, if it should be charged in an indictment or complaint that A B , on etc , etc , practised medicine without then and there possessing the qualifications prescribed in the certain act of the General Assembly of the State of Illinois, entitled "An Act to Regulate the Practice of Medicine in the State of Illinois," approved May 29, 1877, and without then and there having complied with the provisions of that act, and under this charge the prosecution should prove beyond a reasonable doubt that the defendent A B did, within eighteen months prior to the finding of the indictment, prescribe for the sick while publicly professing to be a physician, or that he did append to his name the letters "M D ," a conviction must necessarily follow, unless he should produce his certificate of the State Board of Health, his commission as surgeon in the United States Army or Navy, or prove himself to have so acted under one of the other conditions prescribed in the statute

RABIES —A farmer from Roumania, who had been bitten by a mad dog, was placed under Pasteur's treatment in Paris Notwithstanding, the disease developed in due time and proved fatal This makes the *eighth* death from hydrophobia after having been subject to a pretty fair test by inoculations by Pasteur himself The Roumanian was reported to have been bitten only thirteen days before coming under treatment by Pasteur

CHOLERA —Late advices represent cholera as prevailing with considerable activity in Venice, and two deaths from the same disease had taken place at Florence, Italy

SOCIETY PROCEEDINGS

AMERICAN LARYNGOLOGICAL ASSOCIATION

Eighth Annual Meeting, held in the Hall of the College of Physicians, of Philadelphia, May 27, 28 and 29, 1886

(Continued from page 667)

DR F I KNIGHT, of Boston, read a paper on

LARYNGEAL VERTIGO

A number of cases of what is called laryngeal vertigo have been reported by various authors The distinctive feature of these cases is that attacks of coughing are followed by giddiness and momentary loss of consciousness This latter symptom was present in all but two cases While it is probable that attacks of dizziness after coughing are not rare, yet but little attention has been paid to the subject The writer had been able to find fourteen published cases To these he adds two coming under his own observation The first case was that of a man aged 42 years, who had a chronic bronchitis of one year's duration He had had rheumatism when 15 years of age, and on one occasion had suffered with insom nia No morbid condition of the heart was detected The chest was filled with sonorous and sibilant râles Under the use of iodide of potassium there was gradual improvement After a day of worry and fatigue, he had a cough followed by loss of consciousness There was no evidence of spasm of the glottis and no convulsive movements He never had another attack of loss of consciousness

The second case was that of a lady 47 years of age, who had previously been the subject of attacks of dizziness, the result of indigestion She had suffered with winter cough for a number of years During one attack of coughing she lost consciousness During this time there was congestion of the face

The following points were obtained from a study of the reported cases All the cases with the exception of one have been in males The average at which the attack has occurred has been 47½ years The cough which induced the attack was slight in six cases, spasmodic in two, and severe in three Momentary loss of consciousness occurred in fourteen cases One case fell, but declared that he had not lost consciousness Dizziness is mentioned in eleven cases In four cases there seems to have been decided evidence of laryngeal spasm In one this was doubtful In four cases there was marked congestion of the head and face In two the patients were pale Convulsive movements of the limbs occurred in three cases In one the movements affected the face and head, and in another the face In these cases there was no biting of the tongue, no frothing of the mouth, and no involuntary micturition The speaker objected to the term laryngeal vertigo There probably is no real vertigo in these cases in the sense of the vertigo seen in aural vertigo There is simply giddiness or lightness of the head These cases can not be considered to be instances of petit mal

The cause of the attacks is disturbance of the cerebral circulation, perhaps due to the compression of the large blood vessels of the chest and perhaps the heart Even without this, the effect of rapid breathing is well known This causes marked cerebral disturbance

Dr D Bryson Delavan, of New York, read a paper on

BUCCAL TUBERCULOSIS

He had seen six cases of this affection In the reports of twenty-four cases of tuberculosis of the tongue, in all but one the subjects were males In twelve cases the lesion was anterior, in seven upon the side in one at the base of the tongue, and in four the situation was not stated The disease was primary in nine cases and secondary in seven cases In the remaining cases it was not stated whether the disease was primary or secondary The longest duration of a case of primary tuberculosis was two and one half years, the shortest ten weeks The age of the oldest person affected was 70 years, and of the youngest, not under 12

The first case coming under the speaker's observation was H , aged 35, a laborer His family history and previous history was good The man was remarkably robust Six weeks before coming under observation, he experienced pain at the base of the tongue This pain became excessive, and at the end of two weeks he was obliged to give up work On examination a fissured and ulcerated surface was found at the base of the tongue on the right side This lesion was indurated In the centre was a large ulcer with large flabby granulations On the right side, externally under the angle of the jaw was a hard tumor about the size of a chestnut There was slight fetor of the breath The diagnosis was uncertain, the pain was so severe as to prevent sleep An application of a 4 per cent solution of cocaine checked the pain for five hours The patient's condition became so serious that he was removed to the New York Hospital, where under the idea that the disease was epitheliomatous, the complete removal of the tongue was made The patient recovered rapidly from the operation and there was marked improvement in the general condition It has been impossible to find any evidence of disease of the lungs or other internal organs On microscopic examination all the parts present abundant tuberculous material A point of interest in this case, is that this is the first case on record in which such an operation has been followed by an apparent cure Of course sufficient time has not elapsed, to speak positively as to the ultimate result The operation was done in the latter part of December, 1885

In a second case of tubercle of the tongue, the patient, P O , age 27, gave no history of hereditary tuberculosis He began to run down two years ago, and developed chronic laryngitis When examined, he presented evidence of advanced tubercular disease The larynx was ulcerated There was also a lesion on the right tonsil and one on the left The pain on swallowing was severe Iodoform gave but little relief Temporary ease was given by cocaine An application of lactic acid was made to the right tonsil, and two days later it was much improved This was repeated and the improvement continued for two weeks, when the patient began to run down and died The bacillus tuberculosis was not found, but the man had evident pulmonary tuberculosis

The third case was that of a man, aged 43 Family history good No history of specific disease He was well until ten months ago, when his strength began to fail and cough came on Two months ago, the throat began to grow sore, and within the last two weeks this has increased Careful examination of the chest failed to reveal any evidence of disease Examination of the fauces showed ulceration extending out along the upper border of the uvula Later the signs of pulmonary involvement became evident Applications of lactic acid gave only temporary benefit In this case, the disease has extended along the gum

Three other cases of somewhat similar character were reported

Dr E L Shurley, of Detroit In these cases of so called primary tuberculosis mistakes of diagnosis are sometimes made He is not sure that the bacillus can be regarded as an absolute evidence that the disease is tubercle in one case, which he consid ered to be a case of tubercle of the larynx, and in which the bacillus tuberculosis was found, the patient recovered and is still living five or six years later

DR J O ROE, of Rochester I have had two well marked cases of primary tubercle of the pharynx The first case was that of a lady 35 years of age Six months before coming under observation she suffered great pain in the throat A well marked lesion was found above the border of the epiglottis and at the base of the tongue This improved under local treatment Subsequently the ulceration returned, the patient ran down in health and died The larynx was entirely free from ulceration The second case was a gentleman 40 years of age, who had tuberculosis ulceration of the larynx developed Under the persistent application of iodide of amyl continued for some time the patient recovered, and is still well, weighing 225 pounds

---

FRIDAY, MAY 28 SECOND DAY MORNING SESSION

At 10 o'clock the executive session was held, and the following business was transacted

The following were elected

OFFICERS FOR THE ENSUING YEAR

President—Dr E Fletcher Ingals, Chicago

1st Vice-President—Dr E Carroll Morgan, Washington

2d Vice-President—Dr J N Mackenzie, Baltimore

Secretary and Treasurer—Dr D Bryson, Delavan, New York

Additional Member of the Council—Dr F H Hooper, Boston

The following were elected

ACTIVE MEMBERS

Dr Benjamin F Westbrook, of Brooklyn, Dr Frank Donaldson, Jr, Baltimore, Dr Alexander W MacCoy, Philadelphia, and Dr J C Mulhall, St Louis

Prof Ramon de la Sota y Lastra, of Seville, Spain, was elected a *Corresponding Fellow*

A proposition in reference to the formation of a

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS

was received The proposition was approved, and the following committee, taken from the ex-Presidents of the Society, was appointed to confer with committees from other Societies Dr J Solis Cohen, Philadelphia, Dr G M Lefferts, New York, Dr F I Knight, Boston, Dr F H Bosworth, New York, and Dr E L Shurley, Detroit

It was decided to hold the next meeting in New York, the time to be determined by the Council

DR WILLIAM H DALY, of Pittsburgh, read a paper on

THE SIMPLEST AND MOST EFFICIENT TREATMENT OF DIPHTHERIA

His object was to describe the calomel treatment This is an old treatment It is mentioned in the writings of Rev Sydney Smith About 1779 Sydney Smith's daughter, when six months old, was taken sick with a violent attack of croup Dr Hamilton, of Edinburgh, was sent for, but not being able to come sent directions to "give the child two grains of calomel every hour, and to persevere He had never known this to fail" This was done and the child recovered

The credit of practicing and recommending this treatment in modern times belongs to Dr William C Ritter, of Pittsburg Of the different forms of mercury, calomel is the best The drug is to be given in doses of two to five grains every, one, two, or three hours It may be given dry and washed down with a little ice water, or it may be given in water This is to be continued until the stools become frequent and contain in them gelatinous masses of a bright green color, resembling chopped spinach Then the interval is to be lengthened and the drug continued so as to keep up this condition of catharsis, the patient having two or three stools each day It is better to lengthen the interval than to diminish the dose In this way there is less liability to induce ptyalism Very little depression follows these large and frequently repeated doses Ptyalism does not often occur Under this treatment the membrane exfoliates and re-forms, if at all, with less readiness The fever diminishes The diet is to be of a light, nutritious character

DR E L SHURLEY, of Detroit, agreed that the internal administration of calomel is one of the most efficient remedies for croupous inflammation, but in regard to its efficiency in the treatment of diphtheria, he could not agree The difference between croupous inflammation and diphtheria is considerable He knew of no cases of diphtheria relieved by the calomel treatment

DR F DONALDSON, of Baltimore, wished that Dr Daly had given us some statistics and reported some cases He had seen the calomel treatment frequently tried, but without success He saw Trousseau treat cases of diphtheria in that way, but he finally abandoned it

DR BEVERLY ROBINSON, of New York, said there was scarcely a remedy which had not, at some time, been recommended as a specific for diphtheria Calomel has been thoroughly used, and finally given up because it did not accomplish what was proposed He was convinced that epidemics of diphtheria, as of other infectious diseases, differ very much in virulency, and a remedy which is successful in one epidemic will entirely fail in another He believed that in treatment it is safer to follow what has been considered by the accurate men of our profession, in large numbers, the most reliable treatment for a disease of this character There is a general consensus of opinion that the proper line of treatment is disinfection of the throat and air passages, with the use of smaller or larger doses of the tincture of iron, combined or not with chlorate of potassium

DR F H BOSWORTH, of New York, said diphtheria is a blood poison, which often kills by its toxic effect, but in a greater majority of cases it kills by leading to the development of croup The affection of the larynx is not diphtheria, but a sequent disease While he thought that mercury had no effect upon diphtheria, he believed that it had a specific effect in arresting the disease in the larynx called croup He believes that mercury is the remedy to be administered in croup

Dr. Daly was not surprised that this method of treatment had not been received with favor He did not receive it favorably when it was presented to him He did not recommend calomel as a specific He simply said that he had a greater proportion of successes under this plan of treatment than under any other which he had tried

Dr E Carroll Morgan, of Washington, read a paper on

THE QUESTION OF HÆMORRHAGE AFTER UVULOTOMY, WITH THE DESCRIPTION OF AN INSTRUMENT FOR ITS ARREST

The speaker described the following case A man aged 28 years, whose uvulu had been excised five days previously by another operator, came to him with the statement that the bleeding came on four hours after the operation, and had continued at intervals since then, a large quantity of blood having been lost Various means had been tried to stop the bleeding, without success The parts were covered with a coagulum of the persulphate of iron This was removed and the parts cleansed The bleeding points were then seen The uvulu evidently had been greatly hypertrophied The scissors had been used in the operation There was no evidence of the hæmorrhagic diathesis in this patient, or in any members of the family The parts being cleansed, the stump was seized with dressing forceps and the hæmorrhage was controlled The galvano cautery was applied and the bleeding stopped In nine hours it recurred The cautery was again used and the stump dusted with the persulphate of iron The following morning a copious hæmorrhage took place, not less than a drachm a minute, by actual measurement, being lost A careful examination was then made to detect any other source of hæmorrhage, but none could be found Chromic acid was then used and the hæmorrhage stopped At three o'clock the same day copious bleeding recommenced Galvano-cautery was again employed There was not room for the application of a ligature Torsion was tried without success A small clamp used in retaining shirt sleeves in position was then taken, the spring weakened, and the teeth filed down, was then applied A string was attached to this and brought out of the mouth This checked the bleeding and was allowed to remain for several hours It was then removed and the bleeding did not recur A search of the literature of the subject failed to show any instance in which such a procedure had been before adopted In this case he thought that this device had saved the patient's life

A careful study of the subject has enabled him to find seventeen other cases in which the hæmorrhage after this operation had been profuse Death has never resulted directly from the hæmorrhage after uvulotomy Where the bleeding is persistent it is always arterial in character

The speaker, in conclusion, said that a fatal hæmorrhage had never followed uvulotomy A persistent alarming hæmorrhage is only encountered in the rarest instances A moderate bleeding, stopping spontaneously or by the use of the mildest applications, occasionally happens A loss of a few drops of blood at the time of operating, followed by a slight oozing, is a common occurrence

The most reliable surgical measures for controlling uvular hæmorrhage are, ligature, compression by a clamp or forceps, and the use of the actual cautery The most reliable styptics are, in the order named, solid nitrate of silver, persulphate of iron, gallic acid, tannic acid, alum, the local use of ice, and vinegar The most reliable systemic remedies are opium, acetate of lead, sulphuric acid, and ergot The speaker recommended that in operating, the object should be to restore the uvula as nearly as possible to its normal size, and that the entire uvulu should not be removed

---

Afternoon Session

Dr Thomas R French, of Brooklyn, read a paper on

THE LARYNGEAL IMAGE AS SEEN IN PHOTOGRAPHS TAKEN DURING THE PRODUCTION OF TONES IN THE SINGING VOICE

The speaker had made numerous investigations in this subject, and his observations failed to confirm the statements of most authorities in regard to the position of the vocal cords during the production of different notes in the singing voice Different individuals evidently use different mechanisms in the production of different tones The general result of his investigations seemed to indicate that in the production of low notes the vocal cords are separated to a greater extent posteriorly than anteriorly In the production of the middle tones, the vocal cords are parallel, and in the production of high notes the opening is widest in front The paper was illustrated by numerous photographs thrown upon the screen

The following papers were then read by title *Clinical Notes on Prolapse of the Laryngeal Ventricles,* by Dr Geo W Major, of Montreal *Three Cases of Thyrotomy, Recovery in Each Case, with Good Voice,* by Dr Clinton Wagner, of New York *Alarming Hæmorrhage after Tonsillar Excision, Arrested by Torsion of the Artery,* by the same author

Dr Wm C Jarvis, of New York, described

A NOVEL PROCEDURE FOR THE REMOVAL OF SUBGLOTTIS LARYNGEAL GROWTHS

The following case was described

J C, aged 35 years, consulted me on March 22, 1882, for the relief of a difficulty of speech and of breathing The trouble with the voice was noticed two years before, the difficulty in speech appeared one year before coming under observation The laryngoscope showed a mass of papillomatous tissue occupying the cavity of the larynx The vocal cords and ventricular bands were not involved The attempt was made to seize the growth during phonation with the Mackenzie forceps, only a few pieces were removed The écraseur was then tried, but it was found impossible to use this instrument on account of the wire being seized by the spasmodic contraction of the vocal bands and displaced. Chromic acid applications were then tried, but although the growth was touched, it was found impossible to limit the application to the diseased structures. The patient then disappeared and did not return for a year. His condition was then much worse, and the difficulty of breathing greatly increased.

It was then determined to try the following plan, and if this failed, to remove the growth through an opening in the wind-pipe. Forceps similar to the Mackenzie instrument, but heavier, was secured. Through the tips of the blades holes were drilled, and through these was passed a piece of No. 00 piano wire, which was conducted through a second opening at the angle of the blades and out to the handles, where it terminated in a loop into which the extremity of the index finger could be placed. When the blades were separated this wire formed a cross-bar uniting their extremities. When the blades were closed the loop of wire could be drawn up by the finger. The operation was performed without an anæsthetic. The tongue was depressed and with the aid of the mirror the forceps was introduced into the cavity of the larynx. The mirror was then removed and the forceps carried down to the glottis, through which the tip of the instrument was forced with considerable trouble, on account of the spasm. The instrument was carried into the trachea sufficiently far to be sure that it was below the attachment of the growth. The blades were then separated, and pressing against the anterior wall of the larynx, the instrument was gradually raised until the wire was caught. The blades were then closed and clamped, the loop of wire drawn in and the forceps removed, bringing with it a growth. The laryngoscope showed a second growth, which was removed in the same way. Breathing was at once rendered easy and the speech became natural. The patient said that the presence of the forceps caused no pain, although uncomfortable. This is the only case on record of the removal of a sub-glottis tumor without anæsthetization, and without an opening into the larynx.

Dr. T. Amory DeBlois, of Boston, read a paper on

CASES OF LARYNGEAL ŒDEMA.

The author gave brief details of fourteen cases of laryngeal œdema coming under his observation. All of these cases recovered, six under the use of astringents, and eight after scarification.

Dr. Frank Donaldson suggested that in these cases intubation of the larynx, after the O'Dwyer method, might be applicable.

Dr. E. Carroll Morgan said his experience with this condition had been limited, and the cases had been mild. He usually employed active purgation, with vesiculation over the larynx and various local measures.

Dr. W. C. Jarvis some time ago used, in a case of marked œdema, the fluid extract of jaborandi. In forty-eight hours the œdema had greatly diminished. He had since seen reported several cases in which pilocarpin was used with advantage. He had never seen good results from scarification.

A paper by Dr. Charles H. Knight, of New York, describing *A Case of Perichondritis of the Larynx*, was read by title.

Dr. Edgar Holden, of Newark, reported

A CASE OF GUMMATOUS DISEASE OF THE LARYNX, WITH SPONTANEOUS RE-OPENING OF THE LARYNX AFTER THYROID LARYNGOTOMY.

L. D., aged 35, presented himself, May 20, 1885, with dyspnœa and aphonia. Examination showed a cicatrix on the epiglottis, and the left side of the larynx presented a rounded mass of dull appearance. He denied syphilitic infection. After a careful consideration of the case, the probabilities were thought to favor syphilis, and he was given iodide of potassium in large doses. There was improvement for a short time, but he soon became intolerant to the drug. Thyroid laryngotomy was considered necessary and was performed. The tumor was removed with the écraseur; no ulceration was visible. Tracheotomy was then performed, and the upper incision closed with sutures. The patient did well and the tube was removed on the tenth day. The external wound healed. He insisted on returning to his home, where the surroundings were very unfavorable and his health deteriorated. On the fortieth day after the healing of the wound, the laryngeal incision was torn open by a severe cough. He refused to return to the hospital. Examination of the larynx showed no disease. Under the surroundings it was impossible to get the wound to heal. His health continued to run down, and six months and fourteen days after the operation the patient died of exhaustion. The patient had lived five months with an opening in the larynx.

Dr. U. G. Hitchcock, of New York, read a paper on

GUMMATOUS INFILTRATION OF THE BASE OF THE TONGUE,

giving the details of four cases coming under his observation. In none of these cases was the fibrous septum the exclusive seat of the disease. In three cases, the deposit did not approach this structure. In these cases the degree of dysphagia was in direct proportion to the proximity of the deposit to the base of the tongue.

Saturday, May 29, Third Day—Morning Session.

A paper on *A Case of Hysterical Sneezing, Apparently Cured by Applications to the Nasal Passages of the Continuous Battery Current*, by **Dr. S. Solis Cohen**, of Philadelphia, was read by title.

Dr. John N. Mackenzie, of Baltimore, read

A CONTRIBUTION TO THE PATHOLOGY AND TREATMENT OF THE RESPIRATORY VASO-MOTOR NEUROSES.

The naso-bronchial tract is frequently the seat of periodical vascular disturbance in which explosions of nerve force play a conspicuous part. These probably depend upon some form of sympathetic or vaso-motor irritation. In the production of such conditions two elements enter: a depraved state of the nerve centres and an abnormal excitability of certain portions of the naso bronchial tract In regard to the hyperæsthetic condition of the nasal mucous membrane, the hyperæsthesia characteristic of the paroxysm is like the vaso-motor phenomena which accompany it, purely secondary, and occurs as a result of central irritation or paresis This may pass away with the subsidence of the other symptoms or be more or less constant But in either case, there are certain areas in which the hyperæsthesia is more pronounced The lower, posterior parts are the portions of the tracts usually affected In hay fever we are dealing with a neurosis In this connection, he called attention to a neurosis of the aural cavity which was closely allied to vaso-motor coryza and also to a similar condition of the conjunctiva These cases are a further evidence of the sympathetic nature of these affections With reference to asthma in connection with nasal disease it was stated that the ancients had frequently noted the expulsion of mucus from the nostril accompanying or following an attack of asthma The older writers were evidently familiar with hay fever, but they confounded it with the bronchial asthma of the present day Asthma is looked upon as a disease *per se*, but, like many other disturbances of respiration, it has no particular lesion and is common to many pathological states It, like cough, is most commonly symptomatic of some dis order of the respiratory tract An interesting feature in a certain proportion of cases is the association of urticaria with coryza This is a familiar observation The speaker then considered the relations between the skin and the respiratory tract He regarded the skin as having a function similar to that of the lungs, on the principles which he explained he based the treatment of hay fever, or periodical vaso motor neurosis of the respiratory tract From sixty to eighty cases had been treated after this plan In the greater number of cases the nasal passages were the seat of the vascular disturbance Next in frequency came the pharynx Occasionally it was localized in the laryngeal cavity In whatever portion the vaso motor neurosis is situated, the general principles are the same The treatment of one of these affections is essentially the treatment of the others Hay fever and asthma may be classed as symptoms owing their origin to the same cause

In the treatment of hay fever the chief indications are to remove any existing local respiratory disease, to so alter the nutrition of the nerve centres that they may not respond so easily to irritation, and to care fully search for pathological conditions and adopt ap propriate treatment for their removal when found

These chronic neuroses require chronic treatment The peculiarity of the sympathetic is with the patient all the time, by night and by day, and at any moment may give evidence of its presence by a paroxysm Any treatment which is practised simply during the attack or immediately before is simply palliative In reference to the use of cocaine, he had found that it increased the irritability of these structures, and its application to the erectile tissue may ultimately weaken the cell walls He, however, did not ques tion the excellent virtues of this remedy in certain acute affections In hay fever he had failed to find improvement after its use For a short time amelioration was produced, but in the course of an hour the symptoms recurred His custom is to treat hay fever as any other chronic disease of the nervous system He insisted upon a prolonged tonic course of treatment during the intervals This may at first fail, but if persisted in, the time will come when, if there is no incurable lesion, the paroxysms will diminish in severity and frequency The great mistake is made in the suspension of the treatment upon the termination of the attack Among the remedies for the constitutional management of this class of cases he recommended phosphide of zinc, quinine and nux vomica These may be given in combination in the following proportions

℞ Zinci phosphide gr 1 16
Quiniæ sulphat gr 2
Ext nucis vomicæ gr ¼
M Et ft pil No 1
Sig To be taken before meals

After meals he directs that from 3 to 5 drops of liquor arsenici et hydrargeri iodidi be taken in a wine glassful of water A similar line of treatment had been employed for several years by the speaker in simple inflammatory conditions of the nose and throat with good results He had also employed bromide of potassium with advantage A constant current of from ten to fifteen cells, with one pole over the nape of the neck and the other over the region of the superior cervical ganglia or in the nasal passage has in a few cases been beneficial In one case improvement followed the obliteration of vessels on the posterior wall of the pharynx

In regard to topical applications to the existing nasal conditions, these accomplish one result only They close the door to irritation of the nerve centres In many cases this is of itself sufficient There are other cases in which such a course will fail In these neuroses, we cannot expect to thoroughly eradicate the disease until the sympathetic nerve irritation is overcome

DR WILLIAM H DALY The iodide of sodium has given him better results than any other single remedy He gives it in small doses long continued The upper air passages should be carefully examined, and upon the slightest suspicion of local disease, the condition should be remedied If this is done, he believes that the disappointments will be few The constitutional treatment should, he thinks, be secondary to the local treatment

DR E CARROLL MORGAN The galvano cautery has been highly recommended as a successful remedy for hay fever, but his experience with it has not been so satisfactory as that of some other operators In considering these cases of hay fever, he has been struck with the apparent immunity from this affection experienced by those suffering with anosmia He has never seen essential anosmia in a subject of hay fever He would ask the experience of the Fellows in regard to the efficacy of the galvano cautery treatment as a preventative or a cure for hay fever

DR C E SAJOUS, of Philadelphia In the early part of his experience with the galvano cautery, he had a number of favorable cases Last year he met with a number of unsatisfactory cases What it depended on he does not know, but the results were not by any means as good as those of the preceding year It certainly was not from want of attention on his part Although all the cases were benefited, he thinks he did not obtain absolute relief in more than 45 per cent Some of the cases treated two years ago, and which escaped the attack the following year, had a recurrence last year This is a matter of great importance, because in his work, he advanced the opinion that these cases were absolutely cured Some of the cases have entirely escaped One case treated in 1881 with glacial acetic acid has had no recurrence

Dr Carl Seiler, of Philadelphia The failures of the treatment of hay fever may, he thinks, be explained by the supposition thrown out in the paper read The Schneiderian membrane is not the only source of irritation of the vaso motor nerves The source of irritation may be situated in the pharynx or in the larynx If the case does not yield to treatment of the nasal membrane we should look further Two years ago a case of hay fever presented itself to him Glacial acetic acid was applied, and the following summer he was free from hay fever, but suffered with asthma Examination showed a large posterior hypertrophy, this was removed, and since then, he has had neither hay fever or asthma

Dr Samuel Johnston, of Baltimore, read a paper entitled

A CASE OF NASO-PHARYNGEAL GROWTH

A child was brought to him on account of difficulty in breathing through the nostril Examination showed that there was a tumor filling up the posterior part of the right nostril After a short preliminary treatment, the attempt was made to remove the growth with the écraseur A spray of a 4 per cent solution of cocaine was employed A cord was first passed through the nostril and brought out of the mouth, so that if necessary, the nostril could be plugged without delay The wire of the écraseur was applied without difficulty When the growth had been cut through about two thirds, the shaft of the instrument broke, leaving the wire and about three fourths of an inch of the instrument attached to the growth An attempt was made to apply a second écraseur, but this failed After trying to remove the portion of instrument broken off, it was decided to wait a short time and allow the growth to slough off Four days later the attempt to apply an écraseur was again made and succeeded without difficulty The tumor measured one and one-half inches in diameter and was fibroid in character

Dr C C Rice, of New York, read a paper entitled

WHAT CASES OF NASAL CATARRH REQUIRE SURGICAL TREATMENT?

Almost every nasal chamber will exhibit irregularities and abnormalities of some kind The introduction of more improved methods of determining the locality of inflammation has led to a more frequent resort to surgical measures With the galvano cautery almost any effect, from a slight stimulation to destruction of tissue, can be obtained Those who condemn this instrument should state what use of it they object to Not every case of anterior hypertrophy should be operated upon The erectile tissue in this situation serves a valuable physiological function in swelling up and excluding irritating particles from the lungs In determining whether or not an operation is required, the sensations of the patient should be taken into consideration, with the results of the examination If after the use of a four per cent solution of cocaine, sufficient hypertrophy to interfere with breathing is still apparent, it should be removed

Dr F H Bosworth said the speaker had referred to the erectile tissue of the nose as possessing a physiological function He considered that this tissue is not a true erectile tissue It assumes the erect position only as a morbid condition It is simply an enlarged conglomerate mass of blood vessels There is no physiological function observed by its swelling up The speaker also states that all persons will present abnormalities of the nose It is a mistake to suppose that we have morbid conditions in every nose The healthy nasal cavities present a typical appearance

Dr J N Mackenzie said the microscope shows that the erectile tissue of the nose corresponds with the erectile tissue in other portions of the body He believed that these bodies serve the physiological purpose of excluding irritating bodies from the lower respiratory tract Experiments with horses driven through a cloud of dust have shown that while the anterior portion of the nose was filled with dust none passed into the larynx

The President thought the question of the erectile tissue of the nose should be treated on a broader basis In man the nasal chambers are exceedingly degenerate There is no animal in which the nose is so small in comparison with the rest of the face, as in man It is well known that structures which are passing through a process of degeneration are exceedingly variable So it is with the human nasal chambers Remembering this fact, we come to another of great interest, that all animals with short faces, as the rabbit and cat, have on the nasal septum, erectile bodies He had always held that the object of these bodies was obstructive, and that by swelling up they protected the portions behind If that is the case, he could not see why we cannot claim that erectile tissue exists in man It is his opinion that erectile tissue does exist, and is protective and obstructive

The following papers were read by title *Inflammation of the Antrum*, by Dr Beverly Robinson, of New York *Additional Notes on a Case of Erysipelas of the Larynx*, by Dr Wm Porter, of St Louis

A vote of thanks was then tendered the Philadelphia College of Physicians, the Union League Club, the University Club, and the managers of the Pennsylvania Hospital, for courtesies received, and the Association then adjourned

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK

(FROM OUR OWN CORRESPONDENT)

The Future Influence of Surgery and Surgical Resources upon Obstetrics—Amendment to the Constitution of the Academy—A Pasteur Institute

At the meeting of the Academy of Medicine held on June 3, Dr C C Lee, one of the surgeons to the Woman's Hospital, read a paper on "The Future Influence of Surgery and Surgical Resources upon Obstetrics" It was, to be sure, almost exclusively devoted to the past, but the idea was, that since surgery had already had such a marked effect upon midwifery, it was reasonable to suppose that still greater triumphs were in store for it in this department There was nothing, he said at the outset, more impressive to those interested in the subject of obstetrical procedure than the rapid inroads made within the last four years by surgery into a domain which had been hitherto regarded as one purely medical

He first took a glance at the history of the art of midwifery from the earliest times, giving the ancient Egyptians full credit for the very considerable progress which they made in it, and then, gradually coming down to more recent periods, he took up the subject of the Cæsarean section and gave an account of its history, its dangers, and the method of its performance, after which he spoke of the four modifications of the operation suggested respectively by Francke, of Cologne, Sanger, of Leipsic, and Kehrer and Cohnstein, of Heidelberg Kehrer's method is described as consisting of a transverse incision through the anterior convex surface of the uterus at the line of the *os internum*, of deep sutures to secure immediate contact of the peritoneal borders, and of strict antiseptic precautions during the operation, combined with subsequent drainage of the abdominal cavity In order to cover the line of incision with peritoneum he directs that the latter be separated from the underlying muscle for nearly a half inch from the borders of the wound Dr Lee gave a detailed description of this procedure, as well as of Sanger's "subperitoneal muscular resection," and its modification by Leopold, and of the method proposed by Cohnstein, to turn the uterus completely out of the abdomen, and open it from behind, which, so far as he knows, has never as yet been attempted in actual practice

In order to show that the great danger in connection with the Cæsarean section arises from the delay commonly made in resorting to the operation, he quoted the opinion of Dr Robert Harris, of Philadelphia, whom he pronounced not only the highest authority on Cæsarean section, but the greatest medical statistician that this country has ever produced He then went on to speak of the substitutes which had been devised to take the place of this operation, first describing Porro's operation, which involves the removal, after the performance of the Cæsarean section, of both uterus and ovaries, and its modification by Muller, who recommends that the uterus, after the enlargement of the abdominal wound, shall be tilted laterally, and withdrawn outside the abdomen previous to section

Dr Lee spoke in high terms of the other substitute for Cæsarean section, laparo elytrotomy, as suggested and successfully practised by Dr T Gaillard Thomas Although this procedure was proposed as long ago as 1806 by Jorg, who, however, contemplated cutting through the peritoneum, and again in 1820, by Ritgen, and in 1822 by Physick, of Philadelphia, Dr Thomas was unaware of these facts at the time he worked out the problem for himself by a number of operations on the cadaver Dr Lee thought that he was fairly entitled to the credit of the operation, and that if he had accomplished nothing else, this achievement alone would serve to hand down his name to posterity as one of the great masters of obstetric surgery By this method the dangers of opening into the perineum and wounding the uterus are avoided by an incision of the abdominal parietes along the upper edge of Poupart's ligament, lifting the peritoneum, dissecting down to the vagina, dividing the latter transversely, and then, having reached the cervix, extracting the child through the passage thus artificially created Although the number of cases in which laparo elytrotomy had been performed was as yet comparatively small, the proportion of successes thus far had been much greater than had been met with either in Cæsarean section or the Porro or Porro–Muller operation During his subject, Dr Lee quoted a number of statistics, which were almost entirely taken from Dr Harris's recent article in the International Encyclopædia of Surgery

He next took up the matter of extra-uterine pregnancy, and showed what excellent results had been accomplished by the use of electricity in the earlier months, as first successfully employed by Dr J G Allen, of Philadelphia Having spoken also of the results obtained by elytrotomy and laparotomy in the later months of ectopic gestation, he went on to treat of lacerations of the cervix uteri, and condemned the primary operation in such cases Personally, he said, he had never been successful in securing union by this procedure, and he knew of but one surgeon who claimed to get good results from it In a large number of cases which are left to nature no subsequent operation was required

With regard to lacerations of the perineum, however, the case was very different Here the advantages of immediate closure were so immense that he regarded it as a matter of great importance, and he said that he would now as soon think of leaving a parturient with an undelivered child in the uterus as to neglect to sew up a torn perineum The omission to do this was the source of much suffering and misery which might otherwise have been avoided Notwithstanding the fact that operative surgery had already accomplished so much in the field of obstetrics, he felt confident that, judging from the triumphs of the last few years, the results noted would be still more satisfactory in the future

Dr Wm M Polk remarked that for a considerable period after he commenced the practice of medicine, he ranked himself as strictly a physician In the course of time he became an obstetrician, but he entered upon his work in this department with the conviction that it was simply a branch of the physician's art This feeling was to a great extent due to the training which he had received, and especially to the teachings of Professor Fordyce Barker After a short time, however, he began to appreciate the fact that there were certain points in obstetric practice involving surgical methods, which if, at the present stage of scientific progress in the profession, a man were to neglect, he would soon be driven to the wall It was only recently, indeed, that obstetricians had become alive to the fact that the domain of their art was in reality one of vast scope In the English hospitals, more than in this country, they have had to fight their way surgically against the mere physicians, and also to contend against the active opposition of those recognized as general surgeons But the same had been true to a considerable extent here also, and he was happy to say that the obstetrician, notwithstanding the indifference manifested on the one hand, and the active opposition on the other, had now won for himself an enviable position By way of illustration he need only point to the matter of abdominal section

' At one time vesico-vaginal fistula was almost as much a reproach to the profession as cancer, but at present large numbers of women were perfectly relieved who formerly would have been left to drag out lives of misery and suffering But the pendulum, once started, was apt to swing a little too far, and it was perhaps true that to day the obstetric surgeon was not infrequently a little too free with the use of his knife As to lacerations of the cervix resulting from parturition, he had seen many serious cases (the rent sometimes extending to the vaginal roof), recover perfectly under ordinary treatment, without resorting to operative measures, and his views on this point were quite in accord with those expressed by Dr Lee Surgeons complained that the abdominal cavity was opened too often at the present day It might be, but that was simply a side issue Before the obstetricians of to day, Dr Polk said in conclusion, lay the grandest problem that could possibly engage their attention, viz that in connection with the Cæsarean section He did not doubt that within the next ten years it would be possible to entirely eliminate from practice that most repulsive of all obstetrical procedures, the destruction of the life of the fœtus by craniotomy When this had been accomplished there would have been achieved the greatest triumph ever won in surgery, and the honor of it would belong to the obstetrician

Dr Fordyce Barker, in making some remarks on the primary operation in laceration of the perineum, said that he was not inclined to accept any new proposition until time and experience had determined its real merits, and for a long time he had held his opinion on this subject in abeyance Some years ago, at a meeting of the American Gynecological Society, a distinguished obstetrical authority had made the statement that any physician who did not close by primary operation a rupture of the perineum occurring in his practice was guilty of a neglect of duty He did not express any positive opinion in regard to the matter at that time, but he hesitated to accept this dictum as correct, and at the present time he was still less inclined to acquiesce in its sentiment He then made the announcement that in no case that he had ever attended in his private practice had a secondary operation been performed, and this was simply for the reason that it had never been required He did not mean to say that he had never had any perineal lacerations, but only that none of them are of such a character as to demand a secondary operation The uterus retained its position perfectly in every instance, and no other bad result occurred from the rupture He could say, furthermore, that up to the past winter, in no private case of his had a primary operation ever been performed

Dr Barker then referred to a peculiar epidemic which had occurred in this city during the six months ending May 1 There were no unfavorable symptoms until about the sixth day after labor, when an explosion would suddenly occur in the system, the temperature rapidly running up to 104, 105 or 106° In consultation he had seen forty such cases, but only one case had occurred in his own practice As a rule, the symptoms all disappeared within three days, and out of the forty he was called to see only twenty more than once There was, however, one fatal case It was a significant fact, he thought, that in five out of the forty cases the primary operation for lacerated perineum had been performed, but in only one of them did union take place In the case occurring in his own practice there was a bad laceration, as the labor was a very difficult one, but the result of the primary operation was unsuccessful

In two cases that he knew of, in which immediate closure of a ruptured perineum was effected, there was profuse uterine hæmorrhage, as a result of shock After referring to other cases, he said that his mature opinion was, that while there were, no doubt, cases in which the condition of the patient was so favorable that primary union was likely to result from an immediate operation, yet as a rule it was safer to avoid the operation, and trust to absolute cleanliness and watchful care of the patient If there was any tendency to septic trouble, he believed that the sewing up of the perineum would be likely to be attended with unpleasant consequences on account of the interference which was thus caused to free drainage

Dr Barker then went on to speak of the marked influence which the gynecologist has had upon the surgery of the present time, and in this connection referred to the last paper which Dr Marion Sims had read before the Academy, in advocacy of laparotomy in traumatic lesions of the abdomen, when the late Dr James R Wood, in a forcible address, had argued against this procedure, on the ground that while the gynecologist could carefully prepare his patient for the operation, the general surgeon would be called upon to operate suddenly, and under the most disadvantageous circumstances

Dr Malcolm McLean said that he felt compelled to advocate the desirability of the primary operation in lacerations of the perineum He had found that in those cases in which he sewed up the laceration with soft silk sutures, the result was more satisfactory than in those which were left to nature He did not believe in using silver wire sutures, as they were apt to displace the parts, but silk sutures, deeply and carefully placed, were generally efficient and satisfactory, while they had the advantage, at all events, of not doing any mischief, even if they did not accomplish the desired result However, this procedure served a good purpose by its moral effect, in backing up the accoucheur in case union did not take place, for in these days when so much was expected of one from a surgical point of view, a reflection was apt to be cast upon the medical attendant if there resulted a permanent laceration in which there had been no attempt made to secure union by operative measures In the main, however, he had found this simple operation of decided practical advantage

Dr Polk then stated that he entirely acquiesced in the opinion expressed by Dr McLean He would admit, however, that there were exceptions, in which the conditions described by Dr Barker contraindicated the primary operation There were many cases in which the accoucheur had had a bad operation, or labor had been unduly prolonged, where the existing condition of shock would be likely to be followed by hæmorrhage, and here we are justified in declining to operate We should always be sure that the patient had not already been subjected to the risk of shock before we made any attempt to repair the laceration It was now some time since he had abandoned the use of wire sutures in either primary or the secondary operation It was natural that the latter should have been preferred to all others before the days of antiseptic surgery, but silk properly prepared, and soaked in a bichloride solution, was altogether better than the metallic suture, which was always a cause of great pain and annoyance to the patient

In closing the discussion, Dr Lee said that he differed from Dr Barker in regard to the question of primary operation in perineal lacerations It might be that he had not been able to place his patients under the same favorable conditions for spontaneous recovery which the latter had, but, at all events, he had not been fortunate enough to obtain the same satisfactory results when such cases were left to nature He then referred to the practice observed in the lying in Department of the New York Foundling Asylum, in which the patients were nearly all primaparæ In this institution it was the uniform rule in every case, whether the patient was attended by the house surgeon or one of the visiting physicians, that immediately after labor the condition of the perineum should be carefully ascertained, and if it was found to be decidedly torn, to close the laceration at once Of course he did not wish to be understood as advocating an operation when there was merely an abrasion, or a tearing of the fourchette, such as was almost universally the case with primaparæ He did not believe, either, in operating when there was profound shock present from loss of blood, or other cause, but he had very rarely met with such a condition in his practice

The plan which he adopted was simply to continue the chloroform under the moderate use of which the child had been born, and to make an examination of the perineum, when, if a decided rupture was found, the chloroform was still kept up, and the laceration repaired by means of silk sutures Like Dr Polk, he had not in some time employed silver wire sutures in either primary or secondary operations If the posterior wall of the vagina was involved in laceration, he usually put in two or three catgut sutures at this point The whole operation was a very simple one, but he always performed it under chloroform, and he had never seen shock caused by it In his practice at the Woman's Hospital he had seen so many bad results, which might have been avoided, which were the direct consequence of ruptures of the perineum which were allowed to go without operative interference at the time of their occurrence, that he was firmly convinced as to the great utility of the primary operation

At this meeting the Academy passed the amendment to its constitution which has before been referred to, which gives it once more the undisputable right to discipline its Fellows "for cause "

A meeting was recently held at the house of Dr Alexander B Mott, for the purpose of organizing a Pasteur institute in this city, for the treatment of persons bitten by rabid dogs It was estimated that about $5000 would be required for the first year's expenses, and it was accordingly decided to issue an appeal to the public for subscriptions, as it is proposed to have the inoculations entirely free Dr Valentine Mott has recently returned to this city from Paris with a rabbit inoculated by Pasteur, and it is stated that this is the first time that the latter has permitted his virus to go out of his own hands, which certainly is very complimentary to Dr Mott It would seem that this movement is a little premature at the present time, but if the success of Pasteur's process is finally demonstrated, of course it is only a question of time when such institutes will be established in many large cities in various parts of the world The officers of the proposed institute are as follows President, Dr Alexander B Mott, Vice-Presidents, Drs Alexander F Liantard and Louis Deplasse, Recording Secretary, Dr Charles Villa, Corresponding Secretary, Dr Valentine Mott

P B P

ILLINOIS COLLEGE OF PHARMACY

To the Editor of the Journal

Dear Sir —Being a strong advocate of advanced medical education, and hence by necessity of properly educated pharmacists, it is with a feeling of regret that in the May 22 number of The Journal, I notice, in an announcement of a new pharmaceutical college, what is, in its essence, an attack on the best interests of pharmacy, and hence of medicine, in Illinois It was said by Prof Oldberg, (*Pharmacist*, June, 1885) that, "it requires a very considerable outlay of money and large classes to maintain an efficient college of pharmacy, and the multiplication of schools without visible means of support is to be condemned There are already more colleges and schools of pharmacy, than there is any demand for, and each new addition is a positive injury to the cause of sound education "

Judged by this standard the establishment of a new college of pharmacy, on the grounds alleged in the editorial, was indefensible The only grounds on which the establishment of a new college of pharmacy could be justified from an ethical standpoint, would be that the old college was lowering its standard of graduation and education, whereas the opposite was the case, and was demonstrably the cause of the secession which led to the establishment of the new college None of the gentlemen mentioned as the prospective faculty can be considered pharmacists In the establishment of a college of pharmacy the scientific and not the commercial aspect deserves the first consideration In creating a new college of pharmacy Prof Oldberg and his colleagues have (*to use his own words*), therefore, positively injured the cause of sound pharmaceutical education

Very truly,
FRED M SCHMIDT, Ph G
Secretary Chicago College of Pharmacy

DANGERS OF KISSING

TO THE EDITOR OF THE JOURNAL

Dear Sir —The paper recently published in your journal on "The Dangers of Kissing" has apparently attracted the attention of the medical profession Private communications and clippings have encouraged me in an attempt to pursue the study further Consequently, I hereby request the reports of cases of disease having been communicated by kissing, for use in another paper Very truly, etc ,

SAMUEL S ADAMS, M D
1525 I Street, Washington, D C

BOOK REVIEWS

DIAGNOSIS AND SURGICAL TREATMENT OF ABDOMINAL TUMORS By SIR SPENCER WELLS, BART , etc Sm 8vo , pp 216 Illustrated Philadelphia P Blakiston, Son & Co 1885 Chicago W T Keener

Though this volume might be called a fourth edition of a book published in 1865, it is necessarily in very many respects a new work In scarcely any department of medicine have two decades made more marked changes than in the treatment of abdominal tumors Twenty-five years ago when a physician undertook the treatment of an abdominal tumor he began a journey in the dark Ovariotomy sometimes succeeded, in which case the surgeon was considered lucky, but it as often failed, and was very generally discredited

The first edition of this book might have been called a plea for ovariotomy, to day it is no longer necessary to enter any plea at all for the operation After the publication of the second, in 1872, Mr Spencer Wells thought that with a record of 500 cases he might with propriety go into the diagnosis of ovarian disease and the details of ovariotomy The third book, in 1882, included uterine pathology and surgery, which had been grafted upon that of the ovary The present book goes still farther, and presents the most advanced knowledge of one of the greatest of specialists It is divided into two parts, the first devoted to "Ovarian and Allied Tumors," and the second to "Uterine and other Abdominal Tumors " Every one knows who Sir Spencer Wells is, and what he has done The volume under consideration is condensed and clearly written, and has a good index

MISCELLANEOUS

THE BOWDOIN MEDICAL ALUMNI ASSOCIATION will hold its third annual meeting in Memorial Hall, Brunswick, at 12 M , June 23

ELECTROLYSIS FOR STRICTURE OF THE URETHRA It is said that a special department for the treatment of stricture by electrolysis is now being organized at St Peter's Hospital for Urinary Diseases, in London

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY, FROM JUNE 5 1886, TO JUNE 11 1886

Col J H Baxter, Chief Medical Purveyor, ordered to proceed to New York City on public business, and on the completion thereof to return to his station (S O 128, A G O , June 3, 1886)

Lieut Col Charles Page, Surgeon, granted leave of absence for one month, with permission to apply for ten days' extension (S O 55, Dept Mo , June 1, 1886)

Major Blencowe E Fryer, Surgeon, sick leave of absence still further extended six months on surgeon's certificate of disability (S O 131, A G O , June 7, 1886)

Major Henry R Tilton, Surgeon, ordered for duty as Post Surgeon, Presidio of San Francisco, Cal (S O 38, Dept Cal , June 1, 1886)

Capt G W Adair, Asst Surgeon, granted leave of absence for two months to take effect when his services can be spared (S O 128, A G O , June 3, 1886)

Capt W F Carter, Asst Surgeon, ordered for duty (temporary) at Ft Concho, Texas

Par 2, S O 55, Dept Texas, c s , granting Asst Surgeon Carter leave of absence for one month, is revoked (S O 64, Dept Texas, June 1, 1886)

First Lieut B S Black, Asst Surgeon, ordered for duty at Ft Stockton, Tex (S O 64, Dept Texas, June 1, 1886)

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U S MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED JUNE 14 1886

Mead, F W , P A Surgeon, granted leave of absence for twenty days June 9, 1886

Guitéras, John, P A Surgeon, granted leave of absence for thirty days June 14, 1886

Watkins, R B , Asst Surgeon, granted leave of absence for thirty days June 4, 1886

Pettus, W J , Asst Surgeon, to proceed to Charleston, S C , for temporary duty June 11, 1886

CORRIGENDA

In THE JOURNAL for May 29 p 605 the name of C W Day is given as the member of the committee on State Medicine from Louisiana It should have been Richard H Day of Baton Rouge, La In the same journal on page 600 the title of Dr A R Robinson is given as Lecturer ' when it should have been Professor of Dermatology and Syphilis

THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N S DAVIS

PUBLISHED WEEKLY

Vol VI CHICAGO, JUNE 26, 1886 No 26

ADDRESS

IN OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY

Delivered at the Thirty-Seventh Annual Meeting of the American Medical Association on Tuesday, May 5, 1886

BY EUGENE SMITH, M D ,

OF DETROIT MICH , CHAIRMAN OF THE SECTION

In obedience to the established rule, providing that the Chairman of each Section shall read an address on the advances and discoveries of the past year in the branches of science included in his Section, I offer the following

A retrospect for the past year will bring to our attention but little that is new No startling discoveries have been made, no brilliant inventions heralded to the ophthalmological, otological or laryngological world, but our specialists have been far from stationary Solid advances have been made in improving upon known methods of treatment, and confirming the value of known remedies

It is now about two years since hydrochlorate of cocaine was given to the medical profession as a local anæsthetic of mucous membranes It immediately marked a new era in ophthalmological surgery, and prolonged experience has not lessened one iota of the enthusiasm which was excited by its marvelous effects

On September 11, 1883, there was published in THE JOURNAL an article on "Jequirity in the Treatment of Trachoma," of which I was the author Much has been written since that time, and, as is generally the case with new remedies, it has been exalted as a specific, and decried as a dangerous good for nothing That it has appeared to be both, I do not doubt, but to the man who has met with unusual success with it, and had succeeded by its use in getting rid of severe cases of trachoma and sequellæ, which had for months resisted all forms of treatment, in other lands as well as his own, something, more than mere detraction of its merits by some, good men though they be, will be necessary to cause its removal from the armamentarium of the ophthalmologist My own experience with it, in hospital and private practice, enables me to endorse all that has been said in its praise Owing to the peculiar susceptibility of some patients it seems best in cases wherein dense pannus does not exist to feel the way, as it were, by noting first the effect of a 1 per cent solution before resorting to a 3 per cent which seems to be the strongest solution necessary

The method of "Blepharoplasty without a Pedicle," suggested by Dr Wolfe, of Glasgow, some years since, has had several proofs the past year of its preference to older methods, several successful cases having been recorded in this country

Transplantation of the conjunctiva of the rabbit to man in suitable cases of symblepharon, also I believe, suggested by Wolfe, of Glasgow, must take its place among the recognized operations

I have had the pleasure of reporting a successful case of this character to the Section

The question of the genesis of sympathetic ophthalmia has been very thoroughly discussed and experimented upon The bulk of evidence tends to prove that inflammation of the fellow eye is produced through the track of the optic nerve and chiasma, and not only through the optic sheaths but also by the optic nerve itself

Many reports have been made the past year favorable to the artificial ripening of cataract by Forster's method of kneading the lens after iridectomy or paracentesis of the cornea Some diversity of opinion exists as to whether it offers any advantages over the old method of puncture of the lens capsule

Suppuration of the cornea after an extraction of cataract has become an exceptional occurrence, as has also grave iritis Can this be due to better methods of operating, to choice of cases for operation, to a better preparation of doubtful cases previous to operation, or to antisepsis? To whatever cause it may be attributed, knowing the serious results that are liable to be produced by septic matter, it is our imperative duty to exclude such agents as far as possible, and the antiseptic system, when used should be used in addition to, *not as a substitute for*, preventive precautionary attention

Antisepsis has been carried so far as to wash out the anterior chamber by means of a syringe and mercurial solution, after extraction of cataract, and in cases of hypopion keratitis A dressing of iodoform, used by dusting on the wound, after extraction is another method in use to prevent suppuration of the cornea. Still another is the use of antiseptic discs of gelatine which are placed on the cornea to cover the wound, prevent infection and promote coaptation and healing They adhere to the cornea and dissolve in ten or twelve hours, at the end of which time union of the wound has generally taken place

As cleanliness is the principal object sought with antiseptic lotions, many ophthalmic surgeons discard their use believing they get as good results by having instruments and dressings clean

Cocaine has taken its place in the treatment of painful affections of the ear, and in many cases is found very efficacious Two per cent or 4 per cent solutions are the ones usually employed Disagreeable symptoms—faintness and dizziness—have followed its use in several cases

Many interesting reports of cases of ear disease have been made during the past year, perhaps none among them are of more interest to members of this Association than those referring to deafness following mumps No doubt many cases are overlooked, and probably many cases of unilateral deafness, the direct cause of which is unknown, date their origin from an attack of mumps Cases are on record where the deafness occurred two or three days before the attack of parotitis, but generally the aural trouble occurs several days after The ear trouble is usually ushered in with rushing, hissing noise accompanied by more or less pain in the ear Later vertigo, nausea and vomiting set in These cases are generally considered irremediable, though recovery generally takes place

The pathological changes probably consist in an exudation into the labyrinth with subsequent atrophy —changes resembling those occurring in the testicle in attacks of mumps A Dreyfuss, (in the *Gazette Hebdomadaire*), thinks that in these cases we have to deal with a localization (metastasis) of the morbid products independent of the usual limits of parotitis Not only the lymphatic salivary and seminal glands, but the organs of special sense are affected in mumps

The dry treatment of suppurative otitis media, which has been so strongly advocated by some aurists is found to be admirable in some cases and not at all appropriate in others

The department of laryngology has steadily progressed during the year Not only has the physiology of the upper air passages been greatly elucidated, but the knowledge of the pathology and therapeutics of this region has been very much enlarged Among the important results of all this study and observation may be mentioned the discovery of the causal relations of the nasal chambers and larynx to pulmonary diseases and nervous affections Notably, certain forms of asthma, chorea, and epilepsy, and their relief through the agency of skillful local treatment

In the domain of therapeutics, laryngology has not been behind the other departments of medical science, as attested by the extensive application and brilliant achievements of the galvano cautery and wire snare for the removal of adventitious tissue, neoplasms, etc , and of cocaine and other drugs, through the medium of sponges, inhalations, etc

Many ingenious devices and instruments have also been produced for the more perfect application of medicaments through inhalation to the respiratory passages, with a marked success over former times, and as the work is still actively going on in this direction, we may look forward to the attainment of still greater results in the near future

During this year the practice of intubation of the larynx has been revived, and practised with results—according to recorded cases—which are truly marvelous, and which bid fair to, in a great measure, supplant tracheotomy for the relief of many cases of tracheal diphtheria and allied conditions For this the profession is indebted chiefly to Dr O'Dwyer, of New York

There have been several cases of excision of the larynx during the year, with little better than usual termination Great improvement has been made in photographing the laryngeal image

Particularly gratifying to the profession is the fact that in the marked progress of laryngology during the year, American laryngologists have done their full share

It is my conviction that the mission of our Sections has been largely misunderstood by the profession at large, and by the members who identify themselves with a particular Section Let me speak of my own Section, and possibly my remarks may have some bearing on others The Section is entirely given over to specialists, who, preparing papers which they know are to be heard by specialists, are apt to be technical, and the papers of interest only to such as are exclusively engaged in treating diseases of the eye, ear, or throat The general practitioner, and the bulk of this great Association, is such, not being very well posted in the technicalities of either of the branches of our Section, when he does wander into our apartments finds the proceedings so uninteresting and hard to understand that he seldom tries it the second time

Now it is a well known fact that the busy general physician in small cities and towns can not always avail himself of the counsel and assistance of a specialist, and he is obliged to treat many cases against his wishes While the improvements in the special treatment of cases usually given over to the specialist are many times so frequent that a busy practitioner cannot keep pace with them How can this state of things be obviated? I mean this condition of some of the Sections which seems to keep the mass of practitioners away from them? I would suggest that our rules be changed so as to have read before the general assembly one or more papers each day from the various Sections, said papers to be not over twenty minutes long, and upon a subject of general interest, for example, ophthalmia neonatorum, earache in children, diphtheria, the subject and reader to be chosen by the Section The papers can be discussed in the general meeting, or discussion of the subject may be relegated to the Section Some such course as this would do away with the reading of papers in a certain Section which rightfully belongs to some other, as has repeatedly happened

In conclusion, Mr President and members of the American Medical Association, let me say regarding the literature of ophthalmology, otology and laryngology, if by any chance our relations of amity should be severed from all other nations, American authors would supply the text books required by its students in the pursuance of these studies, as well as all others pertaining to the science of medicine

ORIGINAL ARTICLES

THE INTRA-UTERINE STEM IN THE TREATMENT OF FLEXIONS[1]

BY A REEVES JACKSON, A M , M D ,

PROFESSOR OF GYNECOLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS OF CHICAGO ETC

As medical practitioners we all come, sooner or later, to attach more importance to the results of our individual experiences in practical matters than we do to those of others, that is to say, as we exercise more and more our powers of observation we are likely to feel a constantly increasing degree of confidence in their accuracy This may not seem modest or wise, and may even be an obstacle in the way of progress in the acquisition of knowledge But these considerations are not to the point, and I shall not discuss them I only desire to announce the fact And, knowing this, I shall not expect that the facts which I have to offer for consideration, or the arguments based upon them, will have so much influence upon others as they have upon myself

I began to treat uterine flexions with the stem pessary in the year 1870 Prior to that time the only methods I had employed were gradual dilatation and incisions The results obtained were not satisfactory Some of the cases treated by dilatation were benefited for a time, but those which were of long standing, and presumably accompanied by much textural alteration, almost invariably relapsed, unless pregnancy subsequently occurred In two of the cases in which I incised the cervix the operation was followed by pelvic inflammation, and in one of them the woman barely escaped with her life I felt the need of, and sought for a safer and more successful method I had received the impression that the treatment by intra uterine stems was more hazardous than either of the others, and although I could not understand why this should be so, I accepted the teaching, and commenced their use with great misgiving At first I did not rely upon the stem wholly, but preceded its use with moderate dilatation, or with incision In two of the cases in which this mixed method was employed pelvic cellulitis resulted—one of them terminating in abscess In not a single instance in which the stem alone has been used has recognizable inflammation occurred, although it has seemed imminent in two or three

Within the past few years observations have been published (Vedeler, Herman,) showing that ante flexion of the uterus is a frequent and normal condition, that it bears no causative relation to the symptoms usually ascribed to it, and that, hence, flexions, as such, do not demand treatment at all

While it may be admitted that all cases of uterine flexion are not accompanied by dysmenorrhœa or sterility, and that both these conditions are frequently attributable to other causes even when co existent with flexion, yet it is equally true that in very many instances there does exist a relationship of cause and effect between the flexion and the symptoms named In these, certainly, the flexion must be looked upon as a mischievous pathological factor, and one which ought to be corrected And I know—so far as I can say I know anything—that very many of them are amenable to successful treatment

I have never attempted to treat any case of uterine flexion which was not accompanied by dysmenorrhœa, and the removal of this symptom was the principal, and sometimes the only, object in view—although co existing barrenness frequently constituted an additional incentive to the patient to undergo efforts at cure

I have used several forms of stem pessary, but as most of them have been abandoned for various reasons, I need not consume time by mentioning them in detail More than any other I have used, and still use, the Chambers bifurcated vulcanite instrument, and this has been the most satisfactory A radical defect, however, of the instrument as commonly used is the divergence of the branches *below* the internal os uteri This produces an undue degree of stretching of the parts, resulting sometimes in irritation and expulsive pains I have frequently secured the retention of the instrument by approximating the branches, and using it as a single stem when it could not be borne with the branches separated In all cases the stem ought to be practically single below the internal os Above this point a slight bulging may be given to the blades near their tips, thus preserving the self retaining feature of the instrument

The details of the method which I employ latterly are as follows After ascertaining the existence and direction of a flexion I endeavor to pass a flexible olive tipped bougie through the bent portion and, if possible, quite to the fundus The depth of the uterine canal is carefully noted I then select a pliable stem having the same diameter as that of the bougie, and one third of an inch shorter than the ascertained depth of the uterus The os uteri being then exposed by means of a speculum, the stem, either seized with dressing forceps or mounted upon the end of a piece of pointed wire, is passed entirely into the uterus A large flattened tampon of absorbent cotton, moistened with slightly alumized glycerine, is then pressed firmly against the bulb of the stem, and allowed to remain one or two days It is then removed and replaced by a fresh one It may be necessary to reapply the tampon three or four times before the tendency of the stem to slip out of place disappears

If the os uteri be found pointing high up, either forwards or backwards, it may be impossible to introduce the pessary through a valvular speculum In such a case the patient should be placed in the semiprone position of Sims, or, as I prefer, in that of Simon, on the back, with the buttocks projecting beyond the edge of the table, or bed With perineum retracted, the cervix may be drawn towards the vulva with hook forceps, and the stem introduced as above described These cases present rather more difficulty at this stage of the treatment, but, as a compensation, the stem very rarely leaves its place

These flexible stems are made by cutting the distal end from the ordinary bougies used for stricture of the male urethra A shoulder or bulb is provided by rolling upon the stem a section of rubber tubing

---

[1] Read before the Chicago Medical Society June 7 1886

After the yielding stem has remained for a period varying from one to three weeks, according to the degree of tolerance manifested by the uterus, it is removed, and a thicker one put in its place This, likewise, is permitted to remain a week or two, and is then replaced by a Chambers stem, which, after the preliminary treatment described, rarely produces irritation I never expect much, if any, change of shape to occur in the uterus in consequence of the use of the flexible stem, and yet in several instances I have been surprised to discover that a very considerable alteration had taken place within a few weeks, or even a few days, after beginning its use Moreover, in a few cases I have not been obliged to resort to a rigid instrument at all, the acuteness of the flexion having been converted into a slight curvature by the use of the pliable instrument alone Usually, however, not only have I found it necessary to use an inflexible, or nearly inflexible, pessary, but to persevere in its use for periods varying from three months to a year This is not done continuously, however I always remove the pessary at the end of three or four months Of course, the uterus is found straight at this time The patient is permitted to go without the stem for at least a week, at the end of which time I make an examination to ascertain the condition of the uterus If it be found still of proper shape the pessary is not re-introduced I do not feel at all certain, however, that the apparent cure after so brief a period will be permanent, and, if practicable, I like to make another examination after the further lapse of two or three weeks In case the examination reveal a return of the distortion, even in slight degree, the stem is replaced and the patient directed to wear it for another period of two or three months, when the effect of the treatment is again tested

The feature of this treatment which I hold to be necessary to its safety and success, is its slow and gradual conduct, and the non observance of this necessity has been, I believe, the cause of dangerous results and a failure to cure A moment's consideration ought to assure us that an amount of force necessary to suddenly straighten a chronically flexed uterus would be as great as would be needed to bend a straight one, and could not be safely applied to the exterior of the organ, were that possible, much less to its delicately organized interior Any method of treatment which contemplates the very rapid restoration of a flexed uterus, is faulty in principle and dangerous in practice The distorted viscus must be coaxed, as it were, into proper shape, and then permitted to grow into normal symmetry

The drawbacks to this method of treating uterine flexions are fourfold 1 Difficulty of retaining the instrument in position 2 Pain 3 Hæmorrhage 4 Pelvic inflammation The three latter are common to all other modes of treatment

1 *Difficulty of Retention* —In nearly all cases there is a tendency on the part of the uterus to expel the foreign body, and this tendency is in direct proportion to the degree of irritation produced by its pressure—modified, however, by the relative sensitiveness or excitability of the uterus In some cases an intra uterine stem will give rise to most intense expulsive efforts at riddance, while in others its presence will be apparently unheeded, but even in some of the worst of these tolerance becomes established after a few days of rest in bed, and use of the tampon.

Occasionally, even when the uterus appears quite tolerant of the presence of its tenant, the latter will slip out almost as quickly as it is introduced I have not found any entirely satisfactory method of preventing this The best, so far, has been the use of a vaginal pessary which maintains the uterus in a position of a strong ante- or retroversion, and thus brings the bulb of the stem to rest against the vaginal wall

2 *Pain* —In my experience, pain in any considerable degree has not been a frequent or formidable symptom When it is manifested I rarely do anything to lessen it beyond enjoining strict rest in bed Regarding it as an indicator of the amount of local disturbance the stem may be causing, I prefer to not abolish it by the use of opiates, and thus mask possible inflammatory mischief Commonly, pain which early follows the insertion of the stem subsides after a day or two If it persists longer, or becomes worse, I at once remove the instrument for a few days and then re-introduce it It may sometimes be necessary to thus remove and replace it several times before it can be finally left

3 *Hæmorrhage* —This is a frequent consequence of the use of the stem I have known a few cases in which it was produced almost immediately after the introduction of the instrument and continued as long as the latter remained In most instances, however, we need not expect more than a slight flow, lasting a few days, and perhaps an earlier appearance of the next menstrual epoch, with, possibly, an increased amount of discharge during the first two or three periods following the beginning of the treatment

4 *Pelvic Inflammation* —As already stated, this has not occurred in my experience as a result of the use of the stem pessary But the fact has not lulled me into an unwarranted security against its liability to appear, and I find myself always looking for it

The following table comprises the details of sixty four cases of flexion of the uterus treated with the intra uterine stem, and shows the ages and social condition of the patients, the number of children borne by them, the direction of the flexion, and the result of the treatment, so far as known

TABLE OF SIXTY-FOUR CASES OF FLEXION OF THE UTERUS TREATED BY THE INTRA UTERINE STEM

No	Age	Social Condition	Direction of Flexion	Children	Result	Remarks
1	39	Married	Retroflexion	6	Unknown	
2	27		Anteflexion		"	
3	29		Retroflexion	3		
4	30		Anteflexion		Cure	Pregnancy followed child at term
5	25				"	Became pregnant while wearing Chambers s stem child born at term
6	29		Retroflexion		"	
7	20		Anteflexion	1	"	
8	21	Single				Subsequently married and bore two children

No	Age	Social Condition	Direction of Flexion	Children	Result	Remarks
9	28	Married	Retroflexion		Unknown	
10	10	Single				
11	23	Married	"			
12	28		"		Cure	
13	30	"	Retroflexion			Pregnancy followed twice children born at term
14	21	Single	Anteflexion		"	
15	19					
16	25	Married		1		
17	29	Single	"		Unknown	
18	24	Married			Cure	
19	27					
20	28	"	"		"	
21	25	"			"	Chambers's pessary retained continuously 20 months without discomfort
22	26	"	"		Unknown	
23	32					
24	24	Single			Cure	
25	28	Married	Retroflexion			
26	32	Single	Anteflexion		Improved	
27	21				Cure	
28	27	"			Improved	
29			Retroflexion		Cure	
30	19		Anteflexion			Subsequently married and bore children
31	20	Married	"		Unknown	
32	31		"		Cure	
33	24		Retroflexion	1	Improved	
34	32		Anteflexion		Unknown	
35	19					
36	22	"			Improved	
37	20				Unknown	
38	26				Cure	Afterwards married and bore one child
39	28				"	
40	21	Single				
41	36	Married				
42	30					Became pregnant in one month after stem was removed
43	27		Retroflexion	2	Unknown	
44	26	Single	Anteflexion		Cure	
45	35		Retroflexion			
46	22		Anteflexion		Unknown	
47	20				Cure	
48	24	Married				Had two children subsequently
49	31					
50	37	Single				
51	25				"	
52	21	Married	Retroflexion	1	Unknown	
53	25	Single	Anteflexion			
54	27	Married	Retroflexion		Cure	
55	23	"	Anteflexion			Married subsequently and became pregnant
56	33				Unknown	
57	36		Retroflexion	1	Cure	
58	23	Single	Anteflexion		Unknown	
59	30	Married			Cure	
60	34	"			Unknown	
61	20	Single			Cure	
62	28	Married	Retroflexion			
63	24		Anteflexion			
64	20	Single	"			

From the foregoing table it will be observed that of the sixty four cases, forty-two occurred in married and twenty two in single women Of the former, eight had borne children, the other thirty-four were sterile Of the latter eight subsequently were fruitful Of the entire number a cure of the flexion followed in forty, four were improved and relieved of dysmenorrhœa, which before had been constant In twenty the result was unknown The ages of the patients ranged from 19 to 39 years The uterus was anteflexed in fifty, and retroflexed in fourteen

I believe the principle of the intra uterine stem in the treatment of flexions to be correct, and it need not be dangerous—at least no more dangerous than any other effective method I further believe that by its use a larger number of cases of uterine flexion can be cured than by any other means at present in vogue The conditions necessary for safety and success are watchfulness, patience, and slow progress

MEDICAL PROGRESS.

PHYSIOLOGICAL EFFECTS OF MASSAGE —DR F GOPADZE has published a series of observations undertaken with a view to determine the effect of massage on the transformation of the nitrogenous principles of food He has investigated the history of the subject, and finds traces of it in a Chinese work 3000 B C Dr Gopadze finds that though there has been a general tendency amongst authors to assume that massage increases the assimilative power, no exact observations on the subject have hitherto been published He therefore obtained the co operation of four medical students, who for three consecutive weeks became inmates of Professor Manassein's clinic, and lived on certain articles of food—bread, milk, soup, veal, and roast beef, the quantities injested being accurately noted The nitrogen in all the samples of food, and in the fæces and urine excreted, was determined by the Kjeldahl-Borodin process Massage was practised for from twenty to twenty five minutes once a day two or three hours after food The operations were commenced by *effleurage*, beginning from the extremities and working towards the centre This was followed by *massage a friction*, *pétrissage*, *tapotement*, a second *effleurage* of each part concluding the whole The temperature was subsequently taken, and in some cases sphygmographic tracings In all four cases the appetite was decidedly increased, not only during the week in which massage had been practised, but after it had been stopped, thus, one of the subjects took an average daily quantity of 24 95 grammes of nitrogen during the first week, 30 97 during the second or week of massage, and 29 57 during the third week Similarly the amount of nitrogenous transformation was augumented during the continuance of massage in all four cases The augumentation persisted in two of the cases, but in the other two the transformation was less during the third than during the first week In case 1 the nitrogenous transformation was increased 3 per cent during the second week and 1 per cent during the third In case 2 it was increased 1 per cent during the second week, but diminished 11 per cent during the third In case 3 it was increased 3 per cent during the second week, but diminished 10 per cent during the third In case 4 it was increased 4 per cent in the second week, and 3 per cent in the third The quantity of nitrogen assimilated increased in all four cases, independently of the amount of food ingested During massage two of the subjects gained slightly in weight, the other two losing weight, but during the week following the one in which massage was practised all four gained The axillary temperature decreased for about half an hour after the operation to an extent varying from 0 1° to 0 5° C after which it began to rise, attaining its original figure, or from 0 1° to 0 3° below it, about an hour after the end of the *seance* The respirations became more frequent, and were of a deeper character The effect on the pulse varied with the character of the massage When this was carried on lightly, the pulse became more frequent, but when the manipulation the male urethra A shoulder or bulb is provided by rolling upon the stem a section of rubber tubing

After the yielding stem has remained for a period varying from one to three weeks, according to the degree of tolerance manifested by the uterus, it is removed, and a thicker one put in its place This, likewise, is permitted to remain a week or two, and is then replaced by a Chambers stem, which, after the preliminary treatment described, rarely produces irritation I never expect much, if any, change of shape to occur in the uterus in consequence of the use of the flexible stem, and yet in several instances I have been surprised to discover that a very considerable alteration had taken place within a few weeks, or even a few days, after beginning its use Moreover, in a few cases I have not been obliged to resort to a rigid instrument at all, the acuteness of the flexion having been converted into a slight curvature by the use of the pliable instrument alone Usually, however, not only have I found it necessary to use an inflexible, or nearly inflexible, pessary, but to persevere in its use for periods varying from three months to a year This is not done continuously, however I always remove the pessary at the end of three or four months Of course, the uterus is found straight at this time The patient is permitted to go without the stem for at least a week, at the end of which time I make an examination to ascertain the condition of the uterus If it be found still of proper shape the pessary is not re-introduced I do not feel at all certain, however, that the apparent cure after so brief a period will be permanent, and, if practicable, I like to make another examination after the further lapse of two or three weeks In case the examination reveal a return of the distortion, even in slight degree, the stem is replaced and the patient directed to wear it for another period of two or three months, when the effect of the treatment is again tested

The feature of this treatment which I hold to be necessary to its safety and success, is its slow and gradual conduct, and the non observance of this necessity has been, I believe, the cause of dangerous results and a failure to cure A moment's consideration ought to assure us that an amount of force necessary to suddenly straighten a chronically flexed uterus would be as great as would be needed to bend a straight one, and could not be safely applied to the exterior of the organ, were that possible, much less to its delicately organized interior Any method of treatment which contemplates the very rapid restoration of a flexed uterus, is faulty in principle and dangerous in practice The distorted viscus must be coaxed, as it were, into proper shape, and then permitted to grow into normal symmetry

The drawbacks to this method of treating uterine flexions are fourfold 1 Difficulty of retaining the instrument in position 2 Pain 3 Hæmorrhage 4 Pelvic inflammation The three latter are common to all other modes of treatment

1 *Difficulty of Retention* —In nearly all cases there is a tendency on the part of the uterus to expel the foreign body, and this tendency is in direct proportion to the degree of irritation produced by its pressure—modified, however, by the relative sensitiveness or excitability of the uterus In some cases an intra uterine stem will give rise to most intense expulsive efforts at riddance, while in others its presence will be apparently unheeded, but even in some of the worst of these tolerance becomes established after a few days of rest in bed, and use of the tampon.

Occasionally, even when the uterus appears quite tolerant of the presence of its tenant, the latter will slip out almost as quickly as it is introduced I have not found any entirely satisfactory method of preventing this The best, so far, has been the use of a vaginal pessary which maintains the uterus in a position of a strong ante- or retroversion, and thus brings the bulb of the stem to rest against the vaginal wall

2 *Pain* —In my experience, pain in any considerable degree has not been a frequent or formidable symptom When it is manifested I rarely do anything to lessen it beyond enjoining strict rest in bed Regarding it as an indicator of the amount of local disturbance the stem may be causing, I prefer to not abolish it by the use of opiates, and thus mask possible inflammatory mischief Commonly, pain which early follows the insertion of the stem subsides after a day or two If it persists longer, or becomes worse, I at once remove the instrument for a few days and then re introduce it It may sometimes be necessary to thus remove and replace it several times before it can be finally left

3 *Hæmorrhage* —This is a frequent consequence of the use of the stem I have known a few cases in which it was produced almost immediately after the introduction of the instrument and continued as long as the latter remained In most instances, however, we need not expect more than a slight flow, lasting a few days, and perhaps an earlier appearance of the next menstrual epoch, with, possibly, an increased amount of discharge during the first two or three periods following the beginning of the treatment

4 *Pelvic Inflammation* —As already stated, this has not occurred in my experience as a result of the use of the stem pessary But the fact has not lulled me into an unwarranted security against its liability to appear, and I find myself always looking for it

The following table comprises the details of sixty four cases of flexion of the uterus treated with the intra uterine stem, and shows the ages and social condition of the patients, the number of children borne by them, the direction of the flexion, and the result of the treatment, so far as known

TABLE OF SIXTY-FOUR CASES OF FLEXION OF THE UTERUS TREATED BY THE INTRA UTERINE STEM

No	Age	Social Condition	Direction of Flexion	Children	Result	Remarks
1	39	Married	Retroflexion	6	Unknown	
2	27		Anteflexion		"	
3	29		Retroflexion	3	"	
4	30		Anteflexion		Cure	Pregnancy followed child at term
5	25				"	Became pregnant while wearing Chambers's stem child born at term
6	29	"	Retroflexion		"	
7	20	"	Anteflexion	1	"	
8	21	Single			"	Subsequently married and bore two children

No	Age	Social Condition	Direction of Flexion	Children	Result	Remarks
9	28	Married	Retroflexion		Unknown	
10	10	Single	'			
11	23	Married	"			
12	28		"		Cure	
13	30	"	Retroflexion			Pregnancy followed twice children born at term
14	21	Single	Anteflexion			
15	19					
16	25	Married		1		
17	29	Single	'		Unknown	
18	24	Married			Cure	
19	27					
20	28		"		"	
21	25				'	Chambers s pessary retained continuously 20 months without discomfort
22	26	'			Unknown	
23	32	'				
24	24	Single			Cure	
25	28	Married	Retroflexion			
26	32	Single	Anteflexion		Improved	
27	21				Cure	
28	27				Improved	
29			Retroflexion		Cure	
30	19		Anteflexion			Subsequently married and bore children
31	20	Married			Unknown	
32	31		'		Cure	
33	24		Retroflexion	1	Improved	
34	32		Anteflexion		Unknown	
35	19					
36	22		'		Improved	
37	20		'		Unknown	
38	26				Cure	Afterwards married and bore one child
39	28					
40	21	Single				
41	36	Married				
42	30					Became pregnant in one month after stem was removed
43	27	"	Retroflexion	2	Unknown	
44	26	Single	Anteflexion		Cure	
45	35		Retroflexion			
46	22		Anteflexion		Unknown	
47	20				Cure	
48	24	Married				Had two children subsequently
49	31					
50	37	Single				
51	25					
52	21	Married	Retroflexion	1	Unknown	
53	25	Single	Anteflexion			
54	27	Married	Retroflexion		Cure	
55	23		Anteflexion			Married subsequently and became pregnant
56	33		'		Unknown	
57	36		Retroflexion	1	Cure	
58	23	Single	Anteflexion		Unknown	
59	30	Married			Cure	
60	34				Unknown	
61	20	Single			Cure	
62	28	Married	Retroflexion			
63	24		Anteflexion			
64	20	Single				

From the foregoing table it will be observed that of the sixty-four cases, forty-two occurred in married and twenty two in single women Of the former, eight had borne children, the other thirty-four were sterile Of the latter eight subsequently were fruitful Of the entire number a cure of the flexion followed in forty, four were improved and relieved of dysmenorrhœa, which before had been constant In twenty the result was unknown The ages of the patients ranged from 19 to 39 years The uterus was anteflexed in fifty, and retroflexed in fourteen

I believe the principle of the intra uterine stem in the treatment of flexions to be correct, and it need not be dangerous—at least no more dangerous than any other effective method I further believe that by its use a larger number of cases of uterine flexion can be cured than by any other means at present in vogue The conditions necessary for safety and success are watchfulness, patience, and slow progress

MEDICAL PROGRESS.

Physiological Effects of Massage —Dr F Gopadze has published a series of observations undertaken with a view to determine the effect of massage on the transformation of the nitrogenous principles of food He has investigated the history of the subject, and finds traces of it in a Chinese work 3000 B C Dr Gopadze finds that though there has been a general tendency amongst authors to assume that massage increases the assimilative power, no exact observations on the subject have hitherto been published He therefore obtained the co operation of four medical students, who for three consecutive weeks became inmates of Professor Manassein's clinic, and lived on certain articles of food—bread, milk, soup, veal, and roast beef, the quantities injested being accurately noted The nitrogen in all the samples of food, and in the fæces and urine excreted, was determined by the Kjeldahl-Borodin process Massage was practised for from twenty to twenty five minutes once a day two or three hours after food The operations were commenced by *effleurage*, beginning from the extremities and working towards the centre This was followed by *massage a friction*, *pétrissage*, *tapotement*, a second *effleurage* of each part concluding the whole The temperature was subsequently taken, and in some cases sphygmographic tracings In all four cases the appetite was decidedly increased not only during the week in which massage had been practised, but after it had been stopped, thus, one of the subjects took an average daily quantity of 24 95 grammes of nitrogen during the first week, 30 97 during the second or week of massage, and 29 57 during the third week Similarly the amount of nitrogenous transformation was augumented during the continuance of massage in all four cases The augumentation persisted in two of the cases, but in the other two the transformation was less during the third than during the first week In case 1 the nitrogenous transformation was increased 3 per cent during the second week and 1 per cent during the third In case 2 it was increased 1 per cent during the second week, but diminished 11 per cent during the third In case 3 it was increased 3 per cent during the second week, but diminished 10 per cent during the third In case 4 it was increased 4 per cent in the second week, and 3 per cent in the third The quantity of nitrogen assimilated increased in all four cases, independently of the amount of food ingested During massage two of the subjects gained slightly in weight, the other two losing weight, but during the week following the one in which massage was practised all four gained The axillary temperature decreased for about half an hour after the operation to an extent varying from 0 1° to 0 5° C after which it began to rise, attaining its original figure, or from 0 1° to 0 3° below it, about an hour after the end of the *seance* The respirations became more frequent, and were of a deeper character The effect on the pulse varied with the character of the massage When this was carried on lightly, the pulse became more frequent, but when the manipulation was more forcible, the pulse became slower The effects in both cases persisted for an hour or more after the termination of the operation In conclusion, the author suggests that massage should prove useful in chronic gastro intestinal catarrh, in chronic constipation due to an atonic condition of the intestines, also in various cases where there is a lack of tone in the abdominal muscles He also thinks that the practice of massage should be a subject of instruction not only in the Military Medical Academy of St Petersburg, but in all the medical faculties of the empire and in the institutions for training "feldshers"—a semi educated class of men who act as hospital sergeants, and after retiring from the army are put in charge of village communities where there is no medical man —*Lancet*, May 22, 1886

THE RADICAL CURE OF VARICOCELE —To the large number of operations which have been devised for the cure of varicocele yet another has been added by M RICHET, of the Hôtel Dieu It is described in *Revue de Chirurgie* for April by Mr Picqué who is disposed to laud it The vas deferens is first separated from the bundle of veins to be obliterated and held out of the way by a thread of copper wire passed through the scrotum in an armed needle The veins and the fold of scrotum over them are then grasped by the blades of forceps heated to a red heat, such as M Richet uses for the destruction of hæmorrhoids A wound of some size is left, and cicatrization is obtained in about three weeks M Picqué argues that excision of the veins is the best of all the many operations for varicocele, but that it should only be undertaken by those who are quite familiar with the aseptic treatment of wounds In cases where the surgeon is not confident of his ability to keep the wound aseptic he recommends Richet's operation We cannot join in such advice Richet's operation appears, from the description given of it, to be a very rude method of obtaining a result more easily, more quickly, and better obtained by other means —*Lancet*, May 8, 1886

TENDON-GRAFTING —A boy, aged 14, cut himself in the hand and divided both flexor tendons of the middle finger Thirteen months later he came under M PEYROT's care There was then complete inability to extend the last two joints of the finger An operation was undertaken It was impossible to approximate the divided ends of the tendons, so a piece of a young dog's tendon was interposed between them Unfortunately the wound suppurated, but cicatrization took place and partial success was attained The finger could be semi flexed, and was constantly held partly flexed and therefore less exposed to injury than before, but the tendon was adherent to the scar There seems to be no doubt that the engrafted tendon is really united to the boy's tendon —*Lancet*, May 8, 1886

MORPHINE SUBCUTANEOUSLY IN INFANTILE CONVULSIONS —DR C S SCOFIELD, of Boston, reports the case of a child eighteen months of age, previously healthy, whom he had been called to see on account of eclampsia The child had been in convulsions for two hours and had been given emetics, hot baths, and mustard to the feet, without any benefit The writer at once administered ⅛ grain of sulphate of morphine hypodermatically which was repeated at the end of twenty minutes—no effect having been produced by the first dose This was also followed by no improvement, and a third injection was administered twenty minutes later This was effectual in controlling the convulsions, and by the expiration of an hour from the time of administration of the first dose the child was sleeping quietly When seen the following morning the child had taken food as usual, and was apparently as well as ever —*Medical Record*, May 29, 1885

KOCH'S BACILLI IN ADDISON'S DISEASE —DR GOLDENBLUM, of Dorpat gives in the *Vrach*, (No 11, 1886) an account of a case of Addison's disease occurring in a young man, in which the suprarenal capsules, which were cheesy, contained Koch's bacilli The other organs of the body, including the lungs, which were emphysematous, were also examined, but no bacilli were found The suprarenal capsules were immersed in alcohol and sections made, which were stained by Ehrlich's method A previous case of Addison's disease in which Koch's bacilli were found in the suprarenal capsules was reported in the *Vrach* (No 1, 1886), but in that case the diagnosis was somewhat less clear the body not being distinctly bronzed, though a greyish discoloration was noted, there was also tuberculosis in the lung, which did not exist in Dr Goldenblum's case — *Lancet*, April 24, 1886

HOW TO DETECT ACETONE IN URINE —It is stated by MONS P CHAUTARD that the presence of acetone in urine or pathological liquids may be readily detected by adding a drop of an aqueous solution of magenta decolorized by sulphurous acid to the suspected liquid, when, if acetone is present, a violet color is produced, the intensity of which is proportional to the amount present In dilute solutions the coloration does not appear until after four or five minutes, if the amount of acetone is very minute, the urine or other liquid may be distilled, the first portion that comes over being examined In this way a very minute proportion of acetone may be detected —*Lancet*, May 15, 1886

A LOTION FOR PITYRIASIS CAPITIS —VIGIER (*Gaz Hebdom de Med et de Chir* , April 2, 1886) recommends the following lotion for pityriasis of the scalp and to arrest incipient baldness

Alcohol		3 ounces
Spirit of camphor,	each	75 grains
Rum,		
Tincture of cantharides,		
Glycerin,		
Essence of sandal wood,	each	5 drops
Essence of wintergreen,		
Essence of roses,		
Essence of laurel		
Hydrochlorate of pilocarpine		7½ grains

Dissolve the pilocarpine in the alcohol, and add the other ingredients To be lightly rubbed on the scalp once a day

—*New York Medical Journal*, May 1, 1886

THE

Journal of the American Medical Association

PUBLISHED WEEKLY

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession Letters written for publication or containing items of information should be accompanied by the writer's full name and address although not necessarily to be published All communications in regard to editorial work should be addressed to the Editor

SUBSCRIPTION PRICE INCLUDING POSTAGE

PER ANNUM IN ADVANCE	$5 00
SINGLE COPIES	10 CENTS

Subscriptions may begin at any time The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned When neither is accessible remittances may be made at the risk of the publishers by forwarding in REGISTERED letters

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No 65 RANDOLPH STREET
CHICAGO, ILLINOIS

SATURDAY, JUNE 26, 1886

CLOSE OF VOLUME VI

The present number of THE JOURNAL closes the sixth volume, and the third year of the publication of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION When the first number was issued in July, 1883, the mail list contained less than 2,500 names of members and subscribers, and now it contains about 4,500 The steady increase in the list of its readers, and corresponding increase of revenue, has enabled us to employ more editorial and other assistance, and to give THE JOURNAL a character for neatness, promptness of issue, and value of contents second to no other medical journal in this country Now is a good time for our friends to send in names of new subscribers or of members of the Association by application, as the next number will commence Volume VII Every dollar added to the income will be faithfully applied in such manner as to add to the interest and value of THE JOURNAL for the coming year

WIRING AND GALVANIZATION IN ANEURISM

The results of the treatment of aneurism by electrolysis or the introduction of foreign bodies, such as wire, horse-hair and catgut, have not been very encouraging thus far Ciniselli has recorded 37 cases of aortic aneurism treated by electrolysis, with 6 cures, but his statistics differ so widely from all others that they seem doubtful L H Petit gives 114 cases of aneurism of the thoracic aorta, with 69 benefited, 38 deaths, and 45 failures, but it is found that of the 69 benefited the benefit lasted only a few months in 37, and it was not greater than might have been obtained by rest

Nor has greater success been obtained by the introduction of foreign bodies In a lecture on "A Case of Thoracic Aneurism treated by a Novel Method," MR RICHARD BARWELL says that foreign bodies have been introduced eight times, and in all without success, save in a case of brachial aneurism too small to furnish any data It seems doubtful from this whether Mr Barwell has seen the report of abdominal (aortic) aneurism on which Loreta operated on December 14, 1884, by the introduction of silvered copper wire On the twenty-sixth day after the operation the tumor was solid, reduced fully one-half and the patient was going about This case, whether the patient died subsequently or not from the aneurism, may certainly be said to furnish data However this may be Mr Barwell thinks that electropuncture, when carried out so as to avoid irritation on sloughing of the sac—or so as not to be injurious —fails for the following reasons The cases in which it is used are of necessity large aneurisms, with sacs capable of containing twenty, thirty, or more ounces of blood, and into this large space from one to four needles are inserted If these be connected with the positive pole, a hard but very small clot will be formed round each needle "It seems to me that the difficulty, the rarity of success, depends on the very slight influence that one, two, or three little nodules of coagulum can have on so large a mass of blood If, now, we consider the other method, we find in all probability an opposite defect—namely, the wire or other substance occupies a considerable space in the sac, and I think there is little, if any doubt that the blood will coagulate round substances thus introduced " In this case, however, the clot is very soft —a passive clot, as Broca called it, it is unstable, and there are clinical facts to show that such a clot may be dissolved, and there is a danger that some shreds of it may be carried away as emboli

Such considerations led Mr Barwell to think that if he could increase the area of galvanic action, or increase the hardness and stability of clots formed around foreign bodies, a successful method of dealing with these large aneurisms might be found, and it occurred to him that this might be effected by introducing steel wire into an aneurismal sac, and arranging the wire so that it would lie in wide coils, after which a carefully regulated galvanic current could be passed along the wire He reports a case treated in this manner in his lecture, which may be found in *The Lancet*, of June 5, 1886 When the treatment was determined upon the patient was in a very critical state "The lungs admitted but very little air, in places none at all, his cough was very painful and constant, the expectoration frankly purulent, the wave of blood in the extra-thoracic part appeared almost subcutaneous" The patient had then been under observation for six months A tube of ivory, sharpened as a hypodermic needle, was accepted as the most feasible arrangement for the introduction of the wire The skin was rendered insensible by the injection of cocaine, "a fold was pinched up and a little incision made from within outwards over the tumor, the ivory needle was then thrust in without difficulty and about ten feet of the finest steel wire passed into the sac The wire, having been first wound on a wooden cylinder half an inch in diameter and being of the best steel, must, after being paid through the needle, coil itself up again in the sac"

The galvanic arrangement, which was under the care of Dr Murray, was as follows The wire was connected with the positive pole of an eight celled Garnet's battery, and the negative pole was applied to the upper dorsal region a little to the left of the middle line, a piece of amadou, about a foot square, saturated with hot water, being interposed between the electrode and the skin In the circuit were included a galvanoscope and a Gaiffe's voltameter As the resistance in a voltameter was so great that the strength of the current did not exceed four milliamperes, twenty cells of a Coxeter's "practitioner's voltaic battery" were added to the Garnet battery, which increased the strength of the current to nine or ten milliampères, and this was obtained during the operation, which lasted an hour and ten minutes Some redness of the skin was caused at the negative pole, but no indications of irritation at the place of puncture "For twelve hours signs of consolidation were absent, or nearly so, but at the end of the period the pulsation seemed considerably more distant and the tumor much harder, and this change rapidly increased The lungs began to unload themselves of their accumulated pus and muco-pus, expectoration, very difficult previously, became easy and somewhat copious, showing decrease of pressure on the bronchi" But on the fourth day of the operation a new tumor appeared to the right of the sternum and rapidly increased, the patient became weaker, and died a week after the operation, partly from exhaustion, and partly from rupture of the second sac

The post mortem examination showed that the operation was performed too late, and the existence of the second sac, which could not be reached by the wire, showed that under any possible circumstances the case must have ended fatally But it also showed that there is a future for this method of treating large aneurisms The first sac contained large wide coils of steel wire, each of which was surrounded by a pretty thick coat of firm colorless fibrin, strongly adherent to it at many places—"that is to say, wherever the metal was in contact, or within a moderate distance of the wall, the wire was bound to the sac by this fibrin, thus greatly increasing its strength and resistance Mr Barwell thinks that he is not too dogmatic in saying that if a galvanic current and coils of wire are to be of service in these cases, they will only be so used in combination

MEMORIAL MEETING TO DR BALDWIN —A very full and interesting meeting of the Montgomery Medical and Surgical Society, Alabama, was held on June 9, 1886, in memory of the late Dr W O Baldwin, of that city Very appropriate and interesting addresses reviewing and commendatory of the character and professional work of Dr Baldwin were made by Drs J S Weatherly, R F Michel, J B Gaston, W G Bibb, and R S Williams Letters were also read from many eminent members of the profession from all parts of the country

NINTH INTERNATIONAL MEDICAL CONGRESS

For the information of our readers, and especially to facilitate correspondence, we give the following sub committees elected by the Local Committee of Arrangements at Washington, D C

1 *Committee on Congressional Legislation* —Drs A Y P Garnett, J H Baxter, Ralph Walsh, J M Toner, —— Townsend, N S Lincoln, and C M Hammett

2 *Committee on Finance* —Drs G L Magruder, J W Bulkley, J W Bayne, J T Young, T C Smith, C V N Callan, and Z T Sowers

3 *Committee on Printing* —Drs J B Hamilton, Thomas Antisell, Ralph Walsh, W T Hord, D P Woolhaupton, and H D Fry

4 *Committee on Reception* —Drs J M Toner, I C Rosse, Louis Mackall, S O Richey, Fairfax Irwin, B O Skinner, and H B Loring

5 *Committee on Entertainment* —Drs N S Lincoln, W O Baldwin, J R Hagner, W W Godding, G W Acker, D C Patterson, and C M Hammett

6 *Committee on Transportation* —Drs J W H Lovejoy, W H Taylor, R Reyburn, Sr, Armistead Peter, Geo W Stoner, and E M Schaefer

7 *Committee on Place of Meeting for Congress and Sections* —Drs D C Patterson, Chas Smart, W H Hawkes, J F Hartigan, J O Stanton, Lachlan Tyler, and C W Franzoni

The General Officers of the Local Committee of Arrangements are A Y P Garnett, M D , Chairman, J M Toner, M D , Vice Chairman, C H A Kleinschmidt, M D , Secretary, D C Patterson, M D , Treasurer

It will be seen that the Army, Navy and Marine Hospital Service are well represented on the Local Committee, while the remaining members include a large part of the most active and influential members of the profession in Washington So early and efficient an organization of the Local Committee of Arrangements affords an additional assurance that every needed arrangement will be made in Washington for the comfort of members and the complete success of the Congress

THE TITLE OF SECTION XV of the Ninth International Medical Congress has been changed, at the suggestion of its President, Dr Gihon, from "Collective Investigation, Nomenclature, Vital Statistics, and Climatology," to "*Medical Climatology and Demography*"

SOCIETY PROCEEDINGS

CHICAGO MEDICAL SOCIETY

Stated Meeting, June 7, 1886

THE PRESIDENT, E J DOERING, M D ,
IN THE CHAIR

DR A REEVES JACKSON read a paper entitled

THE INTRA UTERINE STEM IN THE TREATMENT OF FLEXIONS

(See page 703)

DR DANIEL T NELSON, in opening the discussion, said that he was glad to have heard the paper, and thought it was a most valuable one The cautions that it gives are certainly those that all of us should remember, to wit the length of the instrument used compared with the length of the uterus, the slow and gradual dilatation of the uterus before using the inflexible stem, and removing it on the occurrence of bad symptoms In recent years I have not been in the habit of using the stem pessary as much as my friend Dr Jackson, but I think that with his present instructions, I shall try it again Not that I have not tried gradual dilatation, and the gradual, slow, careful straightening of the uterus, but I have not by this particular means caused the pessary to be retained as constantly as he has The vulcanite pessary, and the various other forms, including the Wright's or Chambers s modification, I have used, and with many of the difficulties the doctor has narrated But with his modification it seems to me very likely we can use them with better success The irritation produced by them has been a great drawback, and in recent years it has been my habit rather to use the form of pessary recommended by one of our members, Dr W H Byford, the slippery elm bougie It produces a gradual dilatation of the uterus, and often produces remarkable results in the treatment of the flexions, and I have had no bad results from its use One point that the doctor did not emphasize sufficiently is that the instrument should not be retained long if it produces pain, but it should be removed and the patient put in bed I should have preferred to have him give directions for the patient to remove the instrument if the pain continued for a long time, for if it does the instrument ought to be removed, and if he should happen to be out of the city and the patient should be unwilling for any one else to see her, serious disease might commence before he returned and removed the instrument For this reason it is, and always has been, my plan to have the instrument so arranged, by a string or something of that sort, that the patient can remove it herself We should remember that the instrument should be less than the uterus by a third of an inch, that the uterus is to be put into its proper shape, in a splint, as it were, and then expected to grow right—that it is not cured when it is straightened—if it has been displaced for a considerable time there has been an atrophy of the uterine tissue on one side, and it may take weeks, or perhaps months, to alter the nutrition' of the different parts of the organ, and until that change has taken place it is not likely that the patient is permanently cured, unless pregnancy has taken place, and altered the nutrition of the parts As to pelvic inflammation, the author has been more fortunate than most of us in the use of stem instruments One point I wish to add, viz that when there is any possibility of gonorrhœal poison lurking in the genital passages of the female, greater care should be taken in the use of such instruments, or operative procedure of any sort, for that matter I feel, when there is reason to suspect that this poison has once been implanted, that I hardly dare to introduce sound, pessary, or other instrument in the interior of the uterus, and believe that such an instrument should be used with the greatest caution in these cases

DR E C DUDLEY said The marvelous freedom from dangerous inflammation in treating uterine flexure by forcible dilatation and by the intra-uterine stem, furnishes a striking illustration of the fact that the human uterus will sometimes endure an immense amount of abuse My own preference is generally for the former method, as advocated by Goodell, Ellinger, and others My experience has only tended to confirm me in the impression that forcible dilatation is reasonably satisfactory in its results, and that the results are reasonably permanent I would seldom advocate the use of intra uterine stem pessaries for retroflexion unless the flexure were of the so called congenital variety, and therefore associated with atrophy of the uterus, a condition which is very rare The essayist has, perhaps for reasons of brevity, omitted to make the distinction between physiological and pathological anteflexion This distinction within a few years has been quite clearly defined by

Schultze, Fritsch, and others, and their teachings are now recognized as correct by many of the leading gynecologists throughout the world In the light of their investigations the old diagram of Kolrausch, which for more than twenty years has generally formed the basis for the illustrations of the normal position of the uterus, is now quite generally discarded The uterus has no absolutely fixed position, but it has a certain normal range of movements The angle between the body and the cervix may vary according to the varying quantity of material in the rectum and bladder, from zero to at least 45°, Fritsch says 90°, and his observation is possibly within the physiological limits When the bladder is full the uterus becomes straight and the angle of flexure disappears When empty the angle may measure from 45° to 90°, and yet not be pathological It is moreover probable that a flexure of much less than 45° when the bladder is empty, should be considered pathological Furthermore, anteflexion, even within the defined limits, is always pathological if there be immobility at the angle of flexure, indeed, a displacement exists whenever the organ is restrained from its normal movements In a word, anteflexion is pathological if the mobility at the angle of flexure be increased or decreased beyond the physiological limits, or absent Want of a clear understanding of these simple facts has led to the invention of innumerable pessaries for straightening the anteflexed uterus, and they have been persistently employed, to the detriment of the patient, in cases of perfectly physiological anteflexion Suppose a case The uterus is shown by digital examination to be so low in the pelvis that when the bladder is empty its entire anterior wall is easily touched The physiological flexure, which may be from 45° to 90°, is then perfectly apparent to the examining finger—the symptoms of vesical irritation are attributed to the flexure, and an anteflexion pessary is accordingly introduced which produces pressure upon the anterior wall of the uterus The symptoms disappear, and the conclusion is erroneously formed that the relief was dependent upon the straightening of the uterus, when in reality the pessary has, perhaps, produced no such effect, but has merely lifted the uterus to its health level, and thereby relieved the symptoms, which were due not to flexure but to descent The same manner of treatment has often been followed by relief from similar symptoms attributed to anteversion, when in reality the pessary, by lifting the cervix to a higher level, has exaggerated rather than reduced the anteversion For this reason all vaginal pessaries especially designed for anterior displacements are in no respect superior to the ordinary Hodge pessary, indeed, they are objectionable, because in overcoming the descent they press upon the uterine wall and thereby cause irritation of the organ Anteflexion is only a symptom which may result from any one of a variety of widely different causes, such as adhesions, uterine fibroid, parametritis posterior, or failure of the puerile uterus to develop at puberty It would indeed be irrational to attempt the relief of a symptom due to such diverse causes by any single plan of treatment The essayist would not attempt to do this, but he has neglected to specify the particular flexures for the relief of which he deems the stem applicable Inasmuch as many of these flexures are dependent upon uterine or peri-uterine inflammation, and inasmuch as there is reason to conclude that dysmenorrhœa and other evils are more the result of the inflammatory state than of the flexure itself, I would advise that the stem be reserved for cases which are not relieved after the inflammation has been removed by safer methods Such a plan would certainly restrict the use of the stem to a very small number of cases, because the symptoms for which it is to be employed would so often disappear upon the cure of the inflammation It is indeed probable that the dysmenorrhœa for which the author has employed the intra uterine stem may depend rather upon some faulty nutrition, or upon some disease of the uterus independent of the flexure, and that the stem therefor gives relief by some change which it produces in the nutrition of the organ If this be true, it would then follow that anteflexion *per se* really furnishes no positive indication either in itself or in its results, but that the same treatment would be equally effective under similar conditions without the co existing flexure Congenital anteflexion of the puerile uterus is undoubtedly a condition for which the stem may be considered one of the legitimate means of treatment Sterility, whether associated with pathological flexure or not, has been successfully treated by the stem Winckel says that the presence of the instrument may give a better development to the menstrual decidua and thereby make a better bed for the ovum One objection to the stem, strongly urged by Schultze, is that by its use the physiological flexure is overcome, and it therefore may be said to produce, rather than to relieve, displacement But we should not permit theoretical considerations to bias our judgment in face of the author's carefully observed results His contribution is certainly a valuable one, and shows that the instrument, at least in careful hands, is less dangerous than is ordinarily supposed The author's freedom from inflammatory results is doubtless due to his judicious preparation of each case by means of the olive tipped bougie Undoubtedly the observations of Dr Jackson and others must be considered as placing the intra uterine stem among the useful and approved resources in the treatment of these troublesome cases, but even at the risk of prolixity I again protest against the indiscriminate treatment of purely physiological anteflexion by any means soever

Dr H P Merriman said I have very little to add to what has been said The use of the various methods that have been proposed seem to me to aim at one given end, to change the nutrition of the uterus Forcible dilatation does that to a certain extent, it is temporary, however, in its action Incision produces an alterative effect and accomplishes its purposes It does not succeed a great many times, neither does the temporary action of dilatation The use of the stem pessary, on the other hand, succeeds because it is keeping up a continuous pressure upon the parts Now I am decidedly in favor of this treatment by stem pessary, it strikes me that it is the only rational method of treating these flexions, which are pathological After the cause of a flexion has been removed, that is, the inflammation of the uterus or the pressure of a tumor, or pressure of heavy clothing, or whatsoever causes it, the uterus does not always return to its natural state, and then we need to introduce some method for restoring it to its normal condition, and I do not know any more rational method than this one This paper strikes me as a very valuable one The valuable part of this treatment seems to me not to be so much in the use of this stiff stem, as the earlier treatment by the flexible stem, where, by continuous pressure upon the parts, we are able to accomplish the same effect as passing a sound in chronic cases of gleet, producing a healthy action in a diseased organ and thus producing absorption of a pathological exudate It strikes me that the doctor recognizes this condition for often before using the stiff Chambers' stem when he has been using these bougies, in a great many instances he has found the treatment has nearly cured the disease, and if it had been continued longer I believe a cure would have been effected The intra-uterine stem by continuous pressure induces an alterative action of the tissues, the absorption of exudates and a gradual return to the normal condition, of the uterus, and a natural tendency toward a straightening of the uterine canal as the uterus becomes healthy

Dr **Sarah H Stevenson** said I have listened to the paper with a great deal of interest, and also to the discussion My methods are different, I have used the stem pessary a great deal in former years, but for the past two years I have discarded it entirely as some of the results were unfortunate, although I think I have never had any serious results from the use of the stem I now use, and have for the past two years, the galvanic current entirely, and it is applicable to all cases, especially in those in which the stenosis is so great as not to admit the passage of the bougie I have never found a case in which I could not use this method with satisfactory results

Dr **H T Byford** said I quite agree with Dr Dudley in his trite but very true remark, "It is wonderful what an amount of abuse the uterus will stand, and I congratulate Dr Jackson that he has discarded incision and dilatation in treating flexions I also congratulate him upon his good success I believe the mortality from this treatment—the treatment by the intra uterine stem—has been estimated to be from ½ to 1 per cent by those who have investigated heretofore Whether it is so now I do not know The present per cent of inflammation of the cellular tissue varies from 2 to 5 per cent, as nearly as I can determine There are an immense number of cases in which the stem caused inflammation, which have never been published It seems to me that in considering this subject the reason for this treatment should be made more apparent There are some who use it as a splint or merely to straighten the uterus, others use it as a stimulant on account of its continuous pressure There is no doubt it stimulates and temporarily straightens the uterus, but it is well known that in time, in a large proportion of these cases, the uterus again becomes flexed The question arises, should we try to straighten the uterus? As Drs Dudley and Schultze have said, certain flexions are supposed to be physiological (which I don't believe), the uterus is supported in the neighborhood of the internal os, which may be said to have a fixed place in the pelvis The elasticity of the tissue will allow that part of the uterus to be pressed in nearly all directions, but it will come back The fundus may bend forward or backward and remain in such position for some time, and the uterus still be in a normal position During youth the child who sits too much, has a curved spine, etc, having a uterus pretty firmly fixed at the cervix, will often have the uterus pressed upon by the abdominal contents in the wrong direction The normal resistance of the uterus to flexure will be gradually overcome (the uterus may even become atrophied), and a flexion results which, when slight, may be called a physiological flexion, and may exist without causing trouble, but it is pathological The elasticity which the uterus of normally firm structure displays during the filling up and emptying of the rectum and bladder is hardly worthy of the name of flexure Any considerable permanent flexure occurring in this way must be the result of want of firmness in the structure of the uterus If we are going to use a supporter we should use it when the flexure is forming, not after it has been produced If we will use such treatment as will remove the improper pressure upon the uterus, viz by straightening up the spine, using exercise, etc, etc, a stem will be seldom necessary, because whatever flexion has already been produced will usually not cause unpleasant symptoms If it has gone to the degree of producing atrophy of the uterus we may need to use a stem pessary, but as a stimulant to the uterine tissue rather than a straightener of this organ I have seen uteri bent almost like a horseshoe become impregnated and return almost to their former degree of flexion The intra uterine stem, in view of its slight action as a support and powerful action as a stimulant, and its notoriously bad record, should be the last resort The frequency with which Winckel uses the stem is now about once in 218 cases, while formerly he used it about once in 50, and he is using it less all the time In my experience and the experience of a great many others, if we cure the acute or subacute inflammation of the uterus and then apply stimulating measures, we nearly always accomplish the cure of the flexion by safer means There are, of course, a few cases left in which the use of the uterine stem may be justifiable, but I think they are exceedingly rare If those present, following Winckel, use them only once in 218 times, but few of us will live long enough to do a great deal of harm

Dr **F Davis Fitch** said I think that a paper so commendatory of a measure as this, will perhaps lead many of the members of the profession to adopt it without proper precautions and without realizing the dangers which attend the use of the intra uterine stem I believe it is a very dangerous instrument to use I am an advocate, as you all know, of pessaries, but I do think the intra uterine stem a dangerous instrument, and that in less careful hands than Dr Jackson's serious results will often follow My own experience in the use of it has been limited for the reason that I became alarmed from the bad reports of cases by Dr Chambers himself, the inventor of this bifurcated instrument which Dr Jackson has exhibited If the same precautions are used that are advised by Dr Jackson, I think as a rule it might be entirely harmless—no, I should hardly be able to say entirely harmless, or entirely free from danger—but I think the precautions which he has adopted have been very ingenious and would in the majority of cases prevent serious results from the intra-uterine stem His use of the bougies preceding the use of the inelastic stem, accustoming the uterine mucous membrane, or the uterus itself, to the presence of a foreign body within its cavity, is very ingenious, and a thing I should never have thought of myself Although I have tried these pessaries occasionally my great difficulty has been to keep them in the uterus, I might open them in any direction I pleased, spread the blades as widely as I pleased, and they would slip out—they caused so much uterine contraction that they would be expelled from the uterine cavity into the vagina, and I have always been disappointed in the results from their use For several years while I was in active practice I had adopted the treatment of Peasley, for flexion and stenosis, whether caused by exudation or spasmodic contraction of the os internum, that is by the use of his uterotome dividing the stricture at the internal os, and then gradually dilate the canal until I could introduce a No 12 or 14 sound through the os internum This was introduced every second day from one week to two weeks until it ceased to be followed by pain, and by hæmorrhage after its introduction, showing that the os internum had been thoroughly dilated and the incision had healed sufficiently so that no blood followed the use of the sound After the sound was introduced I used a large glycerine tampon for the purpose of depletion and relief from irritation and to support the uterus, if it was an inversion it would hold the fundus up so as to assist in relieving the flexion to a certain extent at least, and preventing the occurrence of inflammation I have treated a great many cases in this way and with entire satisfaction, and never had a case of acute inflammation of any kind occur as the result I believe, however that a majority of cases of flexion are attended with versions more or less I don't believe that flexions occur so frequently as is generally supposed, unaccompanied with version, the uterus is tipped over more or less in connection with the flexion, and in connection with the treatment which I have suggested I have always corrected the version, and used the ordinary support or pessary to keep the uterus in its proper place, thereby relieving any contraction or pressure which would keep up the flexion I think the paper an admirable one, and the Doctor's precautions in the use of the instrument he has advised, commendable

Dr H C Feeder said I would like to ask for information In the report of these sixty cases of inversion and retroversion it has not been stated how many were accompanied by prolapsis, or what was the cause of flexion, whether in married women getting up too soon after confinement, or whether from acute inflammation The paper does not go into the facts and state whether the uterus is lightened and thereby goes back of itself to a normal position, nor does it inform us if this could be assisted by giving medicine internally Much depends upon the state of the patients at the time of treatment, whether they are in a healthy condition, or whether they have some specific blood disease in which medicine would assist in the treatment And if the medicine has an alterative effect, how much benefit is received from the medicine and how much from the pessary

Dr Jackson said, in concluding the discussion, that he felt that he ought to express his thanks for the courtesy with which his paper had been received It was only a thirteen minute paper, and there are a great many things in the domain of medicine that are not in it, and a great many questions might be asked on subjects growing out of and connected with it, which he could not answer if he were disposed to The intention of the paper is simply to demonstrate the efficacy of a single remedy in correcting a single deformity Questions as to whether the uterus was prolapsed, whether the patients had taken antibilious pills, or had cachexia, really do not enter into the consideration of the subject I supposed that was perfectly plain from the fact that no mention was made of anything beyond the mere condition of deformity I am very glad so many excellent ideas have been added to it The suggestion of Dr Nelson as to the patient being able to withdraw the pessary is excellent, and is never omitted I never introduce a pessary that I do not attach to it a silken cord by means of which the patient can withdraw it in case of necessity As a rule, every patient should be able to withdraw any instrument placed in the genital passages, the regular attendant may not be at hand when needed, there may be an aversion on the part of the patient to calling in another physician, and she should have the proper means at her disposal The remarks of Dr Dudley as regards the distinction that should be made between pathological and physiological conditions resulting in flexion, are quite proper, and I agree with him fully We all know that the conditions preceding and accompanying these bent conditions of the uterus are very various, and in many cases no stem, incision, or other means will have a beneficial effect, although they may for a time cause the uterus to be straight But the mere straightening is not always the main element of cure When the uterus has been chronically flexed there will be a thinning of the side towards the angle, showing local failure of nutrition, either as cause or effect of the bending Straightening, therefore, is one element of cure in a uterus where there is insufficient nutrition, and I do not believe that any other means exclusive of this cures flexion But it must not only be straightened, but its circulation must be fully restored, otherwise the organ will resume its bent condition We cannot put a splint on the outside of the uterus, and the intra uterine stem affords a means by which the uterus may be kept straight enough to allow of circulation on each side The method of treating flexions by forcible and extensive dilatation does more than dilate It straightens, also A bend may be just as acute in a large tube as in a small one, and mere stretching will not suffice, and its results usually not be permanent Gradual dilatation is much more promising, and next to the method by the stem I would prefer it I have only treated cases of flexion in which dysmenorrhœa was present, a symptom that interferes with the patient's health, and the dysmenorrhœa was usually cured or relieved I do not think this such wonderful success, only about two-thirds of the cases were cured, some were simply improved, and in some I do not know the result Yet I think there is no other method that will do quite as well The suggestions made in the discussion accounting for the safety and success of the treatment are, I think, correctly attributed to the preliminary measures —the slowness of the straightening and the promptness with which any tendency to harm could be met The object was to accustom the uterus to its tenant, so that by and by it would accommodate a larger one and in this way the uterus has been made to receive, and tolerate the presence of an inflexible instrument In one case a Chambers' stem was retained twenty months, and I think if the patient had not returned and told me she was wearing it it would be there yet It produced no unfavorable symptoms

Dr A R Small reported

A CASE OF PISTOL-SHOT WOUND

On May 2, 1886, he was called to see F R , aged 23, who, a few minutes previously, had received a shot from a No 32 pistol Patient was suffering from shock, difficult breathing, and excessive pain in the left leg below the knee The ball had struck the right eighth rib, about two inches external to the costal cartilage Sensation was lost in the right leg below the knee Motion was not impaired in the right leg, though the sensation was lost below the knee The left leg was hyperæsthetic below the knee, and motion slightly impaired A drainage tube was inserted about two inches into the wound, and the wound dressed antiseptically The patient complained of no pain except in left leg below the knee, where the pain was excessive Morphia was given hypodermically in sufficient doses to control the pain Nothing was allowed the patient the first twelve hours but ice, and occasionally water About 10 P M there was evidence of internal hæmorrhage, and the patient seemed to be sinking Milk was then given in small quantities frequently The morning of the 3d he had rallied somewhat

The urine was drawn by the catheter every eight hours, and contained blood There was no expulsive force to the bladder Respiration was normal after the first two hours

On the afternoon of the 3d patient became delirious, and continued so, with occasional lucid intervals, until death, which occurred at 4 20 P M of May 4th

Autopsy five hours after death Rigor mortis well marked Unfortunately, through a misunderstanding, the undertaker had preceded us and injected his preserving fluid, so that we were unable to determine exactly the amount of blood in the right pleural cavity It must have been quite large, however, as the right lung was entirely collapsed The ball made a clean round hole through the centre of the eighth rib on the right side, about two inches from the costal cartilage, passed through the lower side of the right pleural cavity, without injuring the lung, passed through the diaphragm, right lobe of the liver, and superior portion of right kidney, and through the intervertebral foramen between the eleventh and twelfth dorsal vertebræ, on the right side of the spine, and lodged against the posterior surface of the body of the eleventh dorsal vertebra, just within the spinal cord, where it was so firmly imbedded that it could not be removed without disarticulating the spine, which, for sufficient reasons, we did not do

Though we found the right lung collapsed, respiration had been normal except the first two hours after the injury

MISCELLANEOUS

Dr G C Savage, of Jackson, Tenn , has recently been elected Professor of Ophthalmology, Otology and Laryngology in the Universities of Nashville and Vanderbilt

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JUNE 12 1886 TO JUNE 18 1886

Major J S Billings, Surgeon, granted two months' leave of absence, with permission to go beyond sea, to take effect July 9, 1886 (S O 138, A G O , June 16, 1886)

Major Wm E Waters, Surgeon, ordered from Dept East to Dept Columbia

Capt Jas C Merrill, Asst Surgeon, ordered from Columbia Bks , Ohio, to Dept Columbia, to take effect upon the expiration of his present leave of absence

Capt Saml Q Robinson, Asst Surgeon, ordered from Dept Columbia to Dept Texas

First Lieut Wm O Owen, Jr , Asst Surgeon, ordered from Dept Columbia to Dept Texas (S O 133, A G O , June 18, 1886)

Capt J V Lauderdale, Asst Surgeon, ordered for duty as Post Surgeon at Fort Concho, Texas (S O 70, Dept Texas, June 12, 1886)

Capt Edward T Comegys, Asst Surgeon, ordered for duty as Post Surgeon, at Madison Bks , Sackett's Harbor, N Y (S O 60, Div Atlantic, June 15, 1886)

First Lieut C S Black, Asst Surgeon, ordered from Ft Stockton, Texas, to Ft Clark, Texas (S O 69, Dept Texas, June 11, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JUNE 10 1886

Swan, R , P A Surgeon, detached from "Brooklyn" and wait orders

Lovering, P A , Passed Asst Surgeon, detached from Navy Yard, New York, and ordered to "Brooklyn"

Arthur, George, P A Surgeon, ordered to Navy Yard, New York

Rush, C W , P A Surgeon, detached from the "Franklin" and ordered to the "Brooklyn"

Hawke, J A , Surgeon, detached from the "Wabash" and ordered to the "Essex" July 1

Smith, Howard, Surgeon, ordered to the "Wabash" stem a dangerous instrument, and that in less careful hands than Dr Jackson's serious results will often follow My own experience in the use of it has been limited for the reason that I became alarmed from the bad reports of cases by Dr Chambers himself, the inventor of this bifurcated instrument which Dr Jackson has exhibited If the same precautions are used that are advised by Dr Jackson, I think as a rule it might be entirely harmless—no, I should hardly be able to say entirely harmless, or entirely free from danger—but I think the precautions which he has adopted have been very ingenious and would in the majority of cases prevent serious results from the intra-uterine stem His use of the bougies preceding the use of the inelastic stem, accustoming the uterine mucous membrane, or the uterus itself, to the presence of a foreign body within its cavity, is very ingenious, and a thing I should never have thought of myself Although I have tried these pessaries occasionally my great difficulty has been to keep them in the uterus, I might open them in any direction I pleased, spread the blades as widely as I pleased, and they would slip out—they caused so much uterine contraction that they would be expelled from the uterine cavity into the vagina, and I have always been disappointed in the results from their use For several years while I was in active practice I had adopted the treatment of Peasley, for flexion and stenosis, whether caused by exudation or spasmodic contraction of the os internum, that is by the use of his uterotome dividing the stricture at the internal os, and then gradually dilate the canal until I could introduce a No 12 or 14 sound through the os internum This was introduced every second day from one week to two weeks until it ceased to be followed by pain, and by hæmorrhage after its introduction, showing that the os internum had been thoroughly dilated and the incision had healed sufficiently so that no blood followed the use of the sound After the sound was introduced I used a large glycerine tampon for the purpose of depletion and relief from irritation and to support the uterus, if it was an inversion it would hold the fundus up so as to assist in relieving the flexion to a certain extent at least, and preventing the occurrence of inflammation I have treated a great many cases in this way and with entire satisfaction, and never had a case of acute inflammation of any kind occur as the result I believe, however, that a majority of cases of flexion are attended with versions more or less I don't believe that flexions occur so frequently as is generally supposed, unaccompanied with version, the uterus is tipped over more or less in connection with the flexion, and in connection with the treatment which I have suggested I have always corrected the version, and used the ordinary support or pessary to keep the uterus in its proper place, thereby relieving any contraction or pressure which would keep up the flexion I think the paper an admirable one, and the Doctor's precautions in the use of the instrument he has advised, commendable

Dr H C Feeder said I would like to ask for information In the report of these sixty cases of inversion and retroversion it has not been stated how many were accompanied by prolapsis, or what was the cause of flexion, whether in married women getting up too soon after confinement, or whether from acute inflammation The paper does not go into the facts and state whether the uterus is lightened and thereby goes back of itself to a normal position, nor does it inform us if this could be assisted by giving medicine internally Much depends upon the state of the patients at the time of treatment, whether they are in a healthy condition, or whether they have some specific blood disease in which medicine would assist in the treatment And if the medicine has an alterative effect, how much benefit is received from the medicine and how much from the pessary

Dr Jackson said, in concluding the discussion, that he felt that he ought to express his thanks for the courtesy with which his paper had been received It was only a thirteen minute paper, and there are a great many things in the domain of medicine that are not in it, and a great many questions might be asked on subjects growing out of and connected with it, which he could not answer if he were disposed to The intention of the paper is simply to demonstrate the efficacy of a single remedy in correcting a single deformity Questions as to whether the uterus was prolapsed, whether the patients had taken antibil ous pills, or had cachexia, really do not enter into the consideration of the subject I supposed that was perfectly plain from the fact that no mention was made of anything beyond the mere condition of deformity I am very glad so many excellent ideas have been added to it The suggestion of Dr Nelson as to the patient being able to withdraw the pessary is excellent, and is never omitted I never introduce a pessary that I do not attach to it a silken cord by means of which the patient can withdraw it in case of necessity As a rule, every patient should be able to withdraw any instrument placed in the genital passages, the regular attendant may not be at hand when needed, there may be an aversion on the part of the patient to calling in another physician, and she should have the proper means at her disposal The remarks of Dr Dudley as regards the distinction that should be made between pathological and physiological conditions resulting in flexion, are quite proper, and I agree with him fully We all know that the conditions preceding and accompanying these bent conditions of the uterus are very various, and in many cases no stem, incision, or other means will have a beneficial effect, although they may for a time cause the uterus to be straight But the mere straightening is not always the main element of cure When the uterus has been chronically flexed there will be a thinning of the side towards the angle, showing local failure of nutrition, either as cause or effect of the bending Straightening, therefore, is one element of cure in a uterus where there is insufficient nutrition, and I do not believe that any other means exclusive of this cures flexion But it must not only be straightened, but its circulation must be fully restored, otherwise the organ will resume its bent condition We cannot put a splint on the outside of the uterus, and the intra uterine stem affords a means by which the uterus may be kept straight enough to allow of circulation on each side The method of treating flexions by forcible and extensive dilatation does more than dilate It straightens, also A bend may be just as acute in a large tube as in a small one, and mere stretching will not suffice, and its results usually not be permanent Gradual dilatation is much more promising, and next to the method by the stem I would prefer it I have only treated cases of flexion in which dysmenorrhœa was present, a symptom that interferes with the patient's health, and the dysmenorrhœa was usually cured or relieved I do not think this such wonderful success, only about two thirds of the cases were cured, some were simply improved, and in some I do not know the result Yet I think there is no other method that will do quite as well The suggestions made in the discussion accounting for the safety and success of the treatment are, I think, correctly attributed to the preliminary measures —the slowness of the straightening and the promptness with which any tendency to harm could be met The object was to accustom the uterus to its tenant, so that by and by it would accommodate a larger one and in this way the uterus has been made to receive, and tolerate the presence of an inflexible instrument In one case a Chambers' stem was retained twenty months, and I think if the patient had not returned and told me she was wearing it it would be there yet It produced no unfavorable symptoms

Dr A R Small reported

A CASE OF PISTOL-SHOT WOUND

On May 2, 1886, he was called to see F R , aged 23, who, a few minutes previously, had received a shot from a No 32 pistol Patient was suffering from shock, difficult breathing, and excessive pain in the left leg below the knee The ball had struck the right eighth rib, about two inches external to the costal cartilage Sensation was lost in the right leg below the knee Motion was not impaired in the right leg, though the sensation was lost below the knee The left leg was hyperæsthetic below the knee, and motion slightly impaired A drainage-tube was inserted about two inches into the wound, and the wound dressed antiseptically The patient complained of no pain except in left leg below the knee, where the pain was excessive Morphia was given hypodermically in sufficient doses to control the pain Nothing was allowed the patient the first twelve hours but ice, and occasionally water About 10 P M there was evidence of internal hæmorrhage, and the patient seemed to be sinking Milk was then given in small quantities frequently The morning of the 3d he had rallied somewhat

The urine was drawn by the catheter every eight hours, and contained blood There was no expulsive force to the bladder Respiration was normal after the first two hours

On the afternoon of the 3d patient became delirious, and continued so, with occasional lucid intervals, until death, which occurred at 4 20 P M of May 4th

Autopsy five hours after death Rigor mortis well marked Unfortunately, through a misunderstanding, the undertaker had preceded us and injected his preserving fluid, so that we were unable to determine exactly the amount of blood in the right pleural cavity It must have been quite large, however, as the right lung was entirely collapsed The ball made a clean round hole through the centre of the eighth rib on the right side, about two inches from the costal cartilage, passed through the lower side of the right pleural cavity, without injuring the lung, passed through the diaphragm, right lobe of the liver, and superior portion of right kidney, and through the intervertebral foramen between the eleventh and twelfth dorsal vertebræ, on the right side of the spine, and lodged against the posterior surface of the body of the eleventh dorsal vertebra, just within the spinal cord, where it was so firmly imbedded that it could not be removed without disarticulating the spine, which, for sufficient reasons, we did not do

Though we found the right lung collapsed, respiration had been normal except the first two hours after the injury

MISCELLANEOUS

Dr G C Savage, of Jackson, Tenn , has recently been elected Professor of Ophthalmology, Otology and Laryngology in the Universities of Nashville and Vanderbilt

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U S ARMY FROM JUNE 12, 1886 TO JUNE 18 1886

Major J S Billings, Surgeon, granted two months' leave of absence, with permission to go beyond sea, to take effect July 9, 1886 (S O 138, A G O , June 16, 1886)

Major Wm E Waters, Surgeon, ordered from Dept East to Dept Columbia

Capt Jas C Merrill, Asst Surgeon, ordered from Columbia Bks , Ohio, to Dept Columbia, to take effect upon the expiration of his present leave of absence

Capt Saml Q Robinson, Asst Surgeon, ordered from Dept Columbia to Dept Texas

First Lieut Wm O Owen, Jr , Asst Surgeon, ordered from Dept Columbia to Dept Texas (S O 133, A G O , June 18, 1886)

Capt J V Lauderdale, Asst Surgeon, ordered for duty as Post Surgeon at Fort Concho, Texas (S O 70, Dept Texas, June 12, 1886)

Capt Edward T Comegys, Asst Surgeon, ordered for duty as Post Surgeon, at Madison Bks , Sackett's Harbor, N Y (S O 60, Div Atlantic, June 15, 1886)

First Lieut C S Black, Asst Surgeon, ordered from Ft Stockton, Texas, to Ft Clark, Texas (S O 69, Dept Texas, June 11, 1886)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U S NAVY DURING THE WEEK ENDING JUNE 10 1886

Swan, R , P A Surgeon, detached from "Brooklyn" and wait orders

Lovering, P A , Passed Asst Surgeon, detached from Navy Yard, New York, and ordered to "Brooklyn"

Arthur, George, P A Surgeon, ordered to Navy Yard, New York

Rush, C W , P A Surgeon, detached from the "Franklin" and ordered to the "Brooklyn"

Hawke, J A , Surgeon, detached from the "Wabash" and ordered to the "Essex" July 1

Smith, Howard, Surgeon, ordered to the "Wabash"

OFFICIAL LIST

Of Delegates and Members in attendance upon the Annual Meeting of the American Medical Association in St Louis, May 4, 5, 6, and 7, 1886

ARKANSAS

State Medical Society—Joseph W Case, Batesville, James A Dibrell, Jr, Philo O Hooper, Roscoe Greene Jennings, Thos Edgar Murrell, Claiborne Watkins, Little Rock, Clifton S Gray, Fayetteville, Wm Harrison Hawkins, Texarkana, Thos W Henley, Bentonville, Geo F Hynes Van Buren, James M Kelleam, Fort Smith, Jas M Keller, Hot Springs, Wm B Lawrence, Batesville, Daniel A Linthicum, Helena, Zaphney Orto, John Franklin Simmons, Chas. P Tobin, Pine Bluff, Wm Blackwell Welch, Fayetteville, Asbury J Vance, Harrison, Phillip VanPatten, Forest City, J M Watkins, LaCrosse

Benton County Medical Society—H Wunst, Rogers

Washington County Medical Society—John Young, Springville

Permanent Member—James A Owens, Pine Bluff

CALIFORNIA

State Medical Society—Wm P Gibbons, Geo P Reynolds, Alameda

Permanent Member—R H Plummer, San Francisco

COLORADO

State Medical Society—John Chase, John W Graham, Thomas H Hawkins, Denver, B St Geo Tucker, Colorado Springs

Permanent Member—Russell G Floyd, Boulder

CONNECTICUT

Fairfield County Medical Society—Wm C Wile, Newtown

Hartford County Medical Society—George R Shepherd, Hartford

Permanent Member—Francis J Young, Bridgeport

DAKOTA TERRITORY

Territorial Medical Association—J B VanVelsor, Yankton

DISTRICT OF COLUMBIA

Medical Association of Dist of Columbia—John W Bayne, John W Bulkley, Alex Y P Garnett, John B Hamilton, C H A Kleinschmidt, DeWitt C Patterson, Edw M Schaeffer, Joseph M Toner, Washington

Permanent Members—Philip H Barton, Albert L Gihon, Washington

FLORIDA

Jacksonville Academy of Medicine—Thomas Osmond Summers, Jacksonville

GEORGIA

State Medical Society—J W Bailey, Gainesville, Henry F Campbell, Augusta, James A Gray, J McF Gaston, Atlanta, Robert Hope Taylor, Griffin

ILLINOIS

State Medical Society—A E Baldwin, Albert E Hoadley, John H Hollister, W W Jaggard, Samuel J Jones, Wm T Montgomery, John D Skeer, Plumer W Woodworth, Chicago, David S Booth, Sparta, Edgar P Cook, Mendota, Wm M Cox, Mt Sterling, B M Griffith, Springfield, Francis B Haller, Vandalia, Charles C Hunt, Dixon Ellen A Ingersoll, Canton, William T Kirk, Atlanta, J H Ledlie, Pittsfield, Chas H Norred, Minneapolis, Minn, Newton S Read, Chandlerville, Augustus R VanHorne, Jerseyville, Wm H Veatch, Carthage, Chas M Vertrus, Murrayville; Alphonzo Wetmore, Waterloo

Northern Central Illinois Medical Society—Wm J Chenoweth, Decatur, S Dickey, J Huber, Pana, Wm O Ensign, Rutland, Thomas Gideon Hickman, Vandalia, J H Miller, Oconee, Kendall E Rich, Wenona

Southern Illinois Medical Society—J K Berkebile, Millstadt, J L Brant, Lakewood, Hosea V Ferrell, Carterville, William Alexander Gordon, C A Mann, Chester, Hugh R Guthrie, S W Marshall, Sparta, Wm Weir Hester Anna, H P Huntsinger, Pinckneyville, Archibald K Leifer, Coulterville, P H McMillan, Shiloh Hill, John Barnes Rosson, Vergennes

Iowa and Illinois Medical Association—George L Eyster, Samuel C Plummer, Rock Island

Adams County Medical Society—L H Baker, Payson, T Gilmore, Quincy, W M Lander, Chouler, Richard Williams, Marcelline

Æsculapian Society of Wabash Valley—Wm M Chambers, Charleston, C S Laughlin, T C McCord, Paris, J L Polk, Arcola, A T Steele, Charleston, Jos B Walker, Effingham

Alexander County Medical Society—Geo J Parker, Cairo

Aurora Medical Society—Mary C Knight, Aurora

Brainard District Medical Society—Rob't U Berger, Hopedale, Alonzo F Burnham, Ashland, W A Mudd, Athens, Philip K Oyler, Mt Pulaski

Centennial Medical Society—John M Hoyt, N S Marshall, H J B Wright, Olney, Wm M Johnson, Johnsonville

Chicago Gynæcological Society—A Reeves Jackson, DeLaskie Miller Chicago

Chicago Medical Society—Walter W Allport, Edm Andrews, Wm T Belfield, D R Brower, Henry T Byford, Isaac N Danforth, Nathan S Davis, S C DeVeny, Edw J Doering, Jas H Etheridge, D W Graham, Joseph L Gray, Alfred S Houghton, E F Ingals, G F Lydston, John S Marshall, F H Martin, E L McAuliff, T W Miller, Liston H Montgomery, John E Owens, Augustus V Park, Jas H Pleaker, Edwin Powell, A R Reynolds, H J Reynolds, F A Stanley, H M Starkey, Mary H Thompson, George W Webster, Nathan S Davis, Jr, Chicago

Chicago Society of Ophthalmology and Otology—S S Bishop, J E Harper, Chicago

Chicago Pathological Society—Emma A Baldwin, A W Harlan, C J Lewis, C E P Silva, A H Tagert, Chicago

Decatur Medical Society—Josiah Brown, Decatur

DeWitt County Medical Society—F B Bullard, Chesnut

Fox River Valley Medical Society—Catherine B Slater, Aurora

Jersey County Medical Society—E G Proctor, Kane

Lake County Medical Society—Alfred C Haven, Lake Forest

LaSalle County Medical Society—John S Ryburn, Ottawa

Macon County Medical Society—John G Harvey, Geo F Waldron, Blue Mound

Macoupin County Medical Society—Fred Brother, Bunker Hill, T N Burwash, Plainview, A C Corr, Chas H Holladay, Carlinville, Geo N Gilson, Shipman, W A Trout, Atwater

McLean County Medical Society—E P G Holderness, Chenoa, John Little, John L White, Bloomington, L E Spear, Shirley

Military Tract Medical Society—R F Henry, Princeville, N B Hoornbeek, Youngstown, J C Kilgore, Monmouth, L A Malone, Jacksonville Edw L Mitchell, Roseville, Madison Reese, Abingdon, Thos A Scott, Galva

Morgan County Medical Society—W C Cole, E L Herriott, T J Pitner, Jacksonville

Ogle County Medical Society—Wm T Speaker, Mt Morris

Peoria County Medical Society—Otho B Will, Peoria

Shelby County Medical Society—W G Wilson, Shelbyville

St Clair County Medical Society—Boyd Cornick, Mascoutah, Orburn T Moore, New Athens

Tazewell County Medical Society—Benj H Harris, Groveland

White County Medical Society—Chas T Hunter, Springerton

Will County Medical Society—David W Jump, Plainfield, Alfred Nash, Wm M Richards, Joliet

Winnebago County Medical Society—A E Goodwin, D Lichty, H Richings, Rockford

Permanent Members—Wm A Allen, Donnellson, C Armstrong, Jas T Crow, Geo M Ross, Carrollton, J M Armstrong, E W Fiegenbaum, Edwardsville, Wm A Byrd, Michael Rooney, Quincy, R W Crothers, Delavan, G M Chamberlin, O C DeWolf, C Fenger, Moses Gunn, H A Johnson, John H Rauch, C G Smith, E S Talbot, W P Verity, Chicago, J J Conner, Palmer, G W Cox, Clayton, P L Dieffenbacher, Havana, F S Dodds, Anna, Jas W Dora, Mattoon, C DuHadway, Jerseyville, Isaac W Fink, Hillsboro, Earl Green, J H Mitchell, Mt Vernon, W A Haskell, Alton, G Wheeler Jones, Danville, W T Lampton, Olney, J T McAnally, Carbondale, S T McDermitt, Cowden, H H Littlefield, Beardstown, D S Jenks, Plano, J P Matthews, Carlinville, R J Mitchell, Girard, J C Myers, Clinton, A M Powell, J L R Wadsworth, Collinsville, Geo J Kivard, Assumption, J Schneck, Mt Carmel, M W Seaman, Shipman, J H Stewart, Exeter, W L Suggett, Flora, L Tibbets, Rockford, T F Worrell, Bloomington

INDIANA

State Medical Society—F W Beard, Vincennes, W H Bell, Logansport, Wm M Holton New Harmony, W O Jenkins, Jno E Link, Terre Haute, A Maxwell, J L Thompson, Willoughby Walling, Indianapolis W V Morgan, Julietta, S L Munford, Princeton, B Newland, Bedford, G R Pickenpaugh, Mt Vernon, J R Weist, Richmond

Allen County—Jas S Gregg, G W McCaskey, Fort Wayne

Bartholomew County—A J Barker, Columbus

Blackford County—C Q Shull, Montpelier

Clark County—H A Graham, Jeffersonville

Dearborn County—Jas Lamb, Aurora, C B Miller, Wm Terrill, Lawrenceburg

Elkhart County—L H Dunning South Bend, Wm A Neal, Elkhart

Floyd County—C P Cook, C W McIntyre, New Albany

Grant County—Alpheus Henley, Fairmount, L P Hess, Marion

Hendricks County—G H F House, Pecksburg

Henry County—G W Burke, Newcastle

Howard County—Wm Scott, Kokomo

Huntingdon County—A J Boswell, Andrews, A H Shaffer, Huntington

Jay County—C S Arthur, Portland

Kosciusko County—Jno H Davisson, Warsaw, F M Pearman, Palestine

La Salle County—C A Landers, Ottawa

Marion County—Jno Chambers, Geo Cook, Jos Eastman, Wm B Fletcher, C N Rooker, Indianapolis

Marshall County—A B Younkman, Bremen

Miami County—J H Helm, C B Higgins, Peru

Owen County—Jacob Cable, Wm V Wiles, Spencer

Pike County—Jas R Adams, R R Kinne, Petersburg

Posey County—D C Ramsey, O T Schultz, E V Spencer, Mt Vernon

Putnam County—L M Hanna, G C Smythe, Greencastle

Randolph County—H P Franks, Losantville

Rush County—Jas Arnold, Rushville

Vanderburgh County—A M Hayden, C Knapp, A M Owen, Evansville

Vigo County—E F Glover, Terre Haute

Wabash County—Jas H Ford, Wabash, M O Lower, North Manchester

Wayne County—Jas F Hibberd, Richmond

Whitley County—F G Grisier, Collins, D G Linville, Columbia City

Permanent Members—Jos H Baker, Stockwell, Geo F Beasley Jno C Webster, Lafayette, D W Butler, Connersville, G W Crapo Terre Haute, Thos B Harvey, Indianapolis, Ernst Hensler, West Franklin, W R McMahon, Gershom P Williams, Huntingsburgh, Hugh T Montgomery, South Bend, Jos Parker, Colfax, S H Pearse, Jno B Weaver, Mt Vernon, Toliver Wertz, Jasper

INDIAN TERRITORY

M K Taylor, Fort Sill

IOWA

State Medical Society—A D Bundy, St Ansgar, Elbert W Clark, Grinnell, N S Craig, Manchester, D W Crouse, O J Fullerton, Waterloo, Chas Enfield, Jefferson, Jos W Finarty, Knoxville, Gershom H Hill, Independence, C M Hobby, Iowa City, R C Hoffman, Oskaloosa, J W Holiday, Burlington, Woods Hutchinson, Jas T Priestley, Des Moines, P W Lewellyn, W C Stilliams, Clarinda, S A McNerney, Danbury, Donald Macrae, Council Bluffs, Marion Meredith, Vinton, J P Morison, Traver, Stella Blanche Nichols, Davenport, E M Reynolds, Centerville, Jas A Sherman, Cherokee, Joel W Smith, Charles City, Fred S Thomas, Carson, Dallis M Wick, New Hartford

Central District Iowa—I J Will, Eagle Grove

Northern Iowa—Thos H Barnes, Waukun

Northwestern Iowa—Jas H Divine, Sioux Rapids

Iowa and Illinois District—Edw H Hazen, Davenport

Botna Valley, Rebecca Hanna, Red Oak

Buchanan County—H C Markham, E Amelia Sherman, Independence

Chickasaw County—H M Mixer, New Hampton

Clinton County—A W Morgan, DeWitt

Council Bluffs—F T Seybert, Council Bluffs

Des Moines Valley—Jos Hensey, Ottumwa, W F Mundy, Sutton, W L McAllister, New Sharon,

Des Moines County—H B Young, Burlington

Dubuque County—W Watson, Dubuque

Iowa City—E T Clapp, Iowa City

Jackson County—A B Bowen, Maquoketa

Jasper County—J H Moore, Prairie City

Keokuk County—T J Maxwell, Jno North, Keokuk

Mitchell County—Jas L Whitley, Osage

Muscatine County—Charles E Rush, Atalissa

Polk County—H R Page, L C Swift, Des Moines

Sioux City—B A Greyton, Sioux City, R C Rice, Southland

Tama County—F L Hinsdale, Eugene R Smith, Toledo

Wapello County—B I Hyatt, S E O'Neill, Ottumwa

Warren County—W T McKay, Milo

Permanent Members—Luther Browne, Postville, Benton H Criley, Dallas Centre, D S Fairchild, Ames, O E Evans, Gowrie, P J Fullerton, Raymond, W H Gibbon, Chariton, H A Gilman, A W McClure, Mt Pleasant, S T Goodman, Maxwell, Geo P Hanawalt, W H Ward, Des Moines, Rolla J Hart, Low Moor, Thos M Hedges, Grinnell, G F Jenkins, Keokuk, E A Kegley, Cedar Rapids, D A La Force, C G Lewis, J Williamson, Ottumwa, J S Love, B S Watson, Springville, D McDill, Burlington, H M M Kenzie, Elwood, A A Rauson, Corning, W O Richards, Waterloo, J C Shrader, Iowa City, W E Wright, Knoxville, Frank A Vanton, Avoca, Robert Aikman, Ft Scott

KANSAS

State Medical Society—Geo Emerson, W S Mendenhall, Winfield, A H Fabriques, Wichita B E Fryer, Kansas City, D J Holland, Atchison, Jos W Redden, J P Lewis, Jno E Minney, D W Stormont, Herbert K Tefft, Topeka J A Hopkins, Parkerville, C V Mottram, Lawrence, W A Phillips, Salina, W I Schenck, Edwin B Shaw, Osage City

Southern Kansas—James E Foote, Wichita, D W Cole, Winfield, Harvey D Hill, Augusta

Southeastern Kansas—Jno H Divelliss, Lacygne

Crawford County—Alonzo Blair, Beulah, Alonzo F Huntoon, Girard

Sumner County—Jno M Hunt, Wellington

Permanent Members—G R Baldwin, Ft Scott Jas Bills, Olathe, F M Daily, Scottsville, Edw H Lockwood, Medicine Lodge, , W W McEwen, Mound Valley, Geo W Miller, Girard, W M Shean, Gardner

KENTUCKY

State Medical Society—J R Bailey, Olmstead, Wm Bailey, Wm Cheatham, M F Coombs, Horace Grant, J B Marvin, Jos M Mathews, J Morrison Ray, John A Octerlony, Dudley S Reynolds, W H Wathen, David W Yandell, Louisville, H Brown, Hustonville, B L Coleman, Lyman Beecher Todd, Lexington, Thos B Greenberg, West Point Jos H Letcher, Henderson, R C McChord, Lebanon, L S McMurtry, Danville, Jos P Thomas, Pembroke

Central Kentucky—Jos H Ballou, Stanford

Southwestern Kentucky—Saml W Luten, Cayce

Christian County—Robert M Fairleigh, Andrew Seargent, Hopkinsville, Howe H Wallace, Newstead

Henderson—Jos A Hodge, Henderson

Louisville—J M Clemens, Preston B Scott, Louisville

Permanent Members—Benj R Helms, Henderson, Edward Richardson, D T Smith, Louisville

LOUISIANA

State Medical Society—Joseph Jones, Samuel Logan, Tobias G Richardson, New Orleans

MAINE

State Medical Society—Thos A Foster, Seth C Gordon, Chas E Webster, Portland, A J Fuller, Bath, Alonzo Garcelon, Lewiston, Chas W Johnson, Litchfield

Permanent Member—F L Hitchcock, Rockland

MARYLAND

Medical and Chirurgical Faculty—A B Arnold, Jno W Chambers, Julian J Chisolm, John S Lynch, John Morris, Baltimore

Baltimore Medical and Surgical Society—Thomas B Evans, George H Rohe, Baltimore

Knox County—Royse Davis, Decker

MASSACHUSETTS

State Medical Society—Wm M Barnett, E W Cushing, H O Marcy, Jacob L Williams, Boston, Moses Greeley Parker, Lowell, Asa F Pattee, West Springfield

Permanent Members—Ira Russell Winchendon, Levi F Warner, Boston

MICHIGAN

State Medical Society—Lyman W Bliss, Saginaw, Wm Brodie, Chas J Lundy, Donald Maclean H O Walker, Detroit, Jas O Edie, Geo K Johnson, Grand Rapids, Simeon S French, Battle Creek, Hugh McColl, Lapeer, Chas F Newkirk, Horace Tupper, Bay City, F K Owen, Ypsilanti, Geo L Ranney, Lansing, Anson R Smart, Hudson, Robert Stephenson, Adrian

West Michigan—Willard W Smart, Grand Haven

Southern Michigan—J F Jenkins, Tecumseh

Regular Bay City Medical Society—Columbus V Tyler, Bay City

Calhoun County—Austin W Alvord, Wm Joseph Fairchild, Battle Creek

Detroit Academy of Medicine—Leartus Connor, Detroit

Detroit Medical and Library Association—J Henry Carstens, Edw Watrous Jenks, Eugene Smith, Detroit

Grand Rapids Academy of Medicine—Jos B Griswold, Arthur Hazlewood, Grand Rapids

Kalamazoo Academy of Medicine—Josiah Andrews, Paw Paw, Harris B Osborne, Kalamazoo

Wayne County—Augustus Keiser, Detroit

Permanent Members—Gertrude Banks, Asa L Blanchard, Detroit, Geo E Frothingham, Ann Arbor, Jno H Kellogg, Battle Creek

MINNESOTA

State Medical Society—E Y Christian, Howard Lake, Elisha W Cross, W W Mayo, Rochester, Jno F Fulton, J H Murphy, Albert E Senkler, St Paul, Chas Hill, Pine Island, H H Kimball, Minneapolis, N S Lane, A W Stinchfield, Eyota, Perry H Millard, Stillwater, Franklin Staples, Winona

Alexander County—Chas W Dunning, Cain

Ramsey County—Cornelius Williams, St Paul

Permanent Members—Geo F French, Chas H Hunter, Minneapolis

MISSISSIPPI

State Medical Society—Saml VanDyke Hill, Macon C C Stockwell, Columbus, F W Rowland, Coffeeville, W M Paine, Aberdeen

MISSOURI

State Medical Society—Wm Dickinson, Geo Homan, Frank J Lutz, Warner B Outhen, St Louis, G A Goben, Kirksville, Abner E Gore, Paris S C Griswold, New Haven, C Lester Hall, Marshall, Jno W Hankins, Glasgow, Jno W Jackson, F M Johnson, F R Lewis, A B Sloan, Kansas City, Willis P King, Jno W Trader, Sedalia, I J Mathews, Carthage H H Middlekamp, Warrenton, O A Williams, Tipton, Oliver C Sheby, Park Hill, Jonathan E Tefft, Springfield, Jno P Thatcher, Pisgah

State Central—Jokshan Freyman, Herrmann, Jno Isbell, Washington

Northwest—Edw S Garner, Jas Weir Heddens, St Joseph

Southeast—Alonzo Barker, Bertrand, Geo W Farrar, Ironton, Geo W Farrar, Jr, Pilot Knob, R I Henderson, Shawneetown, Jno M Rowe, Charleston, S E Strong, St Mary

Southwest—Roger B Gladden, Purdy, Francis D Wright, Peirce City

Audrain County—Edward S Carr, Mexico

Bates County—William Henry Allen, Jas S Gillett, J M Louis, Rich Hill, Oscar I Remak, Butler

Barry County—Alex S Hankins, D L Mitchell, Cassville

Deutsche Med Gesellschaft—Adolf Alt, St Louis

Caldwell County—W I Lindley, Hamilton

Carroll County—Geo R Heighsmith, Dewitt, E Arthur Waggener, Carrollton

Chariton County—H T Garnett, Keytsville, Jno S Wallace, Brunswick

Clay County—Jno M Allen, Enoch H Miller, Liberty, Wm J Yates, Kearney

Grand River—F Brown, Hamilton, Jno L Burke, Laclede

Hannibal—Chas L Lamb, D Howell Shields, Hannibal

Jackson County—Jas A Lond, A P Campbell, Jno H Duncan, J D Griffith, Randal R Hunter, Chas H Lester, Jas E Logan, Jno H Thompson, I B Tiffany, Wm C Tyre, Kansas City

Jasper County—Robert F Brooks, Carthage, Silas W Hopkins, Sarcoxis

John McDowell Medical Society—Wm S Allen, Olean, Jno W Brant, Tipton, Henry W Latham, Latham's Store

Kansas City—Marcus A Bogie, H O Hanawalt, Jacob H Rieger, L W Schauffler, Jno H Van Eman, Kansas City, J O K Gant Plattsburg

Lewis County—Robert J Christie, (Quincy, Ill), Wm Ellery, LaGrange

Linton District—Pinckney French, W V Walker, Mexico, J J Hubley, Benton City, Saml S Laws, Columbia

Macon County—Frank W Allen, Barryville, A B Miller, Macon, W F Morrow, Kirksville

Moberly District—N M Baskett, Thos Irwin, Moberly, B G Dysart, Thos B Loyd, Paris, H K Givens, Fayette, C T Holland, Keytsville, Wesley Humphrey, Kansas City, H H D Moorman, Dalton

Monroe County—Jas J Norton, Monroe City, H C Vaughan, Santa Fe

Pettis County—Edw C Evans, W C Overstreet, Jr, Sedalia, Edw Royal Hemlock Hughesville

Platte County—Jno W Martin, Weston, Spencer Redman, Platte City

Ray County—Geo W Buchanan, Richmond, Wm G Estill, Vibbard

Rolla District—J Turner Coffee, W A Metcalf, Steelville Milton Godbey, Salem

Saline County—Wm Harrison, Jno B Wood, Marshall, Wm H Morris, Miami

Springfield—Edw H McBride, Springfield

St Louis Medico Chirurgical Society—Chas E Briggs, N B Carson, Jno O'F Delany, L C Gehrung, Edw S Lemoine, Henry H Mudd, T I Prewitt, Aaron J Steele, Paul W Tupper

St Louis Medical Society—LeGrand Atwood, I Ch Boisliniere, L Bremer, Eustathius Chancellor, D V Dean, LeRoy Dibble, Geo I Dudley, W E Fischel, Elisha A Gorgas, Chas H Hughes, Geo T Hunter, Robt J Hill, B M Hypes, L H Laidley, Wm A McCandless A H Meisenbach, F D Mooney, J C Mulhall, T L Papin Simon Pollak, Anak A Rowland, Jas M Scott, T Hardy Smith, F W Wesseler

Permanent Members—Robt Chilton Atkinson, Robt Barclay, Wm Lee Barnet, A F Brock, Young H Bond, Edw Borel, G W Broome, Jno P Bryson, Paul M Carrington, Walter Coles, Chas O Curtman, Chas Henry Dixon, A H Ohmann Dumesnil, Geo J Engelmann, F K Eversole, Wm Alexander Frazier, A H Fuller, Robt Funkhauser, Elliott E Furney, Geo F Gill, Wm C Glasgow, I A Glasgow, Wm C Greene, Spencer Graves, Nicholas Graham, Jos Grendon, T L Holland, L F Hauck, K M Jordan, Wm F Kier, Fred Kolbenberger, Daniel Kuhn, H Elmer Lee, Isaac N Love, Jno Magoffin, Tilly A Martin, Jno Mayger, Jas McClure, J H McIntyre, W G Moore, M P Morrell, Gratz A Moses, Alexander J Mullen, L P Pollman, Wm Porter, M Hayward Post, Edw M Powers, R D Reilly, Chas Reiss, Chas H Rohlfing, A C Robinson, Frank M Rumbold, Thos I Rumbold, Adolphus Schlosstein, Jno B Shapleigh, Alex B Shaw, Ellsworth F Smith, Joseph Spiegelhalter, Justin Steer, Remy J Stoffel, J Wm Williamson, Julius Wix, St Louis, S M Beeman, W R Simpson, Chillicothe, Jno T Berghoff, Geo C Catlett, Jacob Geiger, St Joseph, Alpheus Bondurant, Wm Franklin Grimstead, Charleston, T C Boulware, Butler, Jas A Brashear, Bud, Jno F Campbell, Calho, J W Cameron, Jackson, Jno K Clark, Farmersville, Hampson S Clay, Augusta, C C Clements, Springfield, H B Coleman, Columbus, Z Coleman Denney, Mt Vernon, James M Foreman, Jonesburg, Putnam S Fulkerman, Lexington, Jos O Glenn, Shannondale, A W Graham, Holstein, Chas F Goodrich, New Haven, Saml T Hall, Potosi, C R Halley Foristell, Geo Halley, S E Lamphear, Thos B Lester, Calvin J Morrow, Kansas City, B F Hart, Brownsville, Jos Carter Hearne, Hannibal, Thos B Jackson, Macon City, D La Count, Chilton, Horace M Lane, Carthage, J M McComas, Sturgeon, J T Marsh, Liberty, Wm H Means Marionville, Jno J Miller, West St Louis, Wm F Mitchell, Lancaster, Robt M O Ferrall Lafayette, Jno S Pearson, Louisiana, J M Quigley, Peirce City, Saml B Rowe, Rolla, Turner S Riggs, Providence, C W Seeber, Higginsville, M P Sexton, New Bloomfield, Edward W Small, Sedalia, Ferdinand Smith, Frankford, H H Vinke, St Charles, David V Wale, Jasper, Robt C Waters, Perryville, Cassius M Witmer, Marble Hill, Paul C Yates, Neosho

NEBRASKA

State Medical Society—Allen B Anderson, Pawnee City, Victor H Coffman, Jacob C Denise, Wm J Galbraith, R C Moore, Omaha, Chas S Hart, Lincoln, Wm M Knapp, York, Harvey Link, Millard, Otero C Reynolds, Seward

Douglas County—Jas M Sweetman, Omaha

NEW JERSEY

State Medical Society—E L B Godfrey, Camden, B A Watson, Jersey City

Hudson County—Isaac N Quimby, Jersey City

NEW YORK

State Medical Association—E S F Arnold, Horace B Ransom, New York City, Chas W Brown, Elmira, Wm A Hall, Fulton

Erie County—Byron H Daggett, Buffalo

New York County—Ellsworth Eliot, Robert Newman, S W Smith, New York City

Permanent Members—A G Ellinwood, Attica, Wm Warren Potter, Buffalo, A R Robinson, James R Taylor, New York City, Ely Van de Warker, Syracuse

NEW MEXICO

Territorial Medical Society—Wm R Tipton, Las Vegas

NORTH CAROLINA

State Medical Society—Chas Jas O'Hagan, Greenville

OHIO

State Medical Society—Alfred H Brundage, Xenia, Orpheus Everts, College Hill, J W Hamilton, Starling Loring, Columbus, H J Herrick, A C Miller, X C Scott, Cleveland, Ben A Leonard, West Liberty, Jonathan Morris, Ironton, Jas M Mosgrove, Urbana, P P Pomerene, Berlin, Joseph Ransohoff, Jas T Whittaker, Cincinnati, R Harvey Reed, Mansfield, Jas D Robinson, Wooster, Henry J Sharp, Albert J Strain, London, Samuel T Thorn, Toledo

Northwestern Ohio—Jonathan B Vail, Lima

Ohio Valley—Caleb K Reed, Middleport

Butler County—Geo F Cook, Oxford, Chas C Hoover, Ross

Champaigne County—Porton K Bennett, Saml M Mosgrove, Urbana

Cincinnati Academy of Medicine—G A Fackler, Jas M French, A E Heighway, A E Heighway, Jr, P N Heise, Robt C Jones, Edw S McKee, Thad A Reamy, Jonathan Taft, Gustav Zinke, Cincinnati

Cincinnati Medical Society—I Williams, Philip Zenner, Cincinnati

Clinton County—Allen T Quinn, Wilmington

Columbus Medical Club—Jno W Wright, Columbus

Cuyahoga County—M L Brooks, Cleveland,

Knox County—Abraham C Scott, Bladensburg

Ross County—Gustavus S Franklin, Chillicothe

Sandusky County—Thos Stilwell, Fremont

Stark County—Austin C Brant, Canton

Toledo Medical Association—Symmes C Berger, Toledo

Union Medical Society of Columbus and Mahoning Counties—Jacob Bossert, Washingtonville

Wayne County—Hugh A Hart, E J Yocum, Wooster

Permanent Members—Jno Bennett, Wm J Scott, Cleveland, J W Craig, Mansfield, Wm W Dawson, Oliver D Norton, Cincinnati, J F Gabriel, Piqua, M A Hughes, Port Clinton, F C Larimore, B B Scott, Mt Vernon, Fred H Patton, National Mil Home, W D Scarff, Bellefontaine

PENNSYLVANIA

State Medical Society—R J Dunglison, Albert Fricke, Peter D, Keyser, John B Roberts, John V Shoemaker, Henry H Smith, Wm T Taylor, Frank Woodbury, Philadelphia, Geo I Horton, Tarrytown, Rensselaer Leonard, Mauch Chunk, Robt McConaughy, Mt Pleasant, Geo O Moody, Titusville, J W C O'Neal, Gettysburg, H L Orth, Harrisburg

Allegheney County—John M Batten, J Chris Lange, F LeMoyne, Geo W McNeil, Jas B Murdoch, Alex M Pollock, Thos W Shaw, Pittsburgh, Wm M Brenton, Sharpsburg, S T Redick, Allegheny

Beaver County—W J Langfitt, Allegheny City, Jefferson H Wilson, Beaver

Blair County—S M Ross, Altoona

Bradford County—Fred G Newton, Towanda

Cambria County—Jno C Sheridan, Johnstown

Chester County—Isaac Massey, West Chester

Crawford County—Geo W Barr, Titusville

Dauphin County—Wm Thos Bishop, David H Coover, H McGowan, C A Rahter, Harrisburg

Elk County—Clarence G Wilson, St Mary's

Franklin County—Jno Montgomery, Chambersburg, R W Ramsay, St Thomas

Indiana County—Shallus R Rutledge, Blairsville

Lancaster County—Jno K Lineaweaver, Columbia, Jno H Sherk, Litiz

Luzerne County—Lewis H Taylor, Wm C Weaver, Wilkesbarre

Lycoming County—Louis Schneider, B H Detwiler, Williamsport

McKean County—Martin E Drake, Mt Alton

Northampton County—Peter B Breinig, Bethlehem

Venango County—B F Hamilton, Emlenton

Permanent Members—Wm B Atkinson, James M Barton, Wilson Buckley, Leonardo S Clark, Wm R Cruice, Geo B Dunmire, L Webster Fox, R M Girvin, Wm Joseph Hearn, Edward Jackson, Leonardo D Judd, Samuel K Knight, Chas K Mills, Andrew K Minich, Wm H Pancoast, Philadelphia, M J McKennon, York, E L M Marbourg, Johnstown, Chas T Reber, Reading

RHODE ISLAND

State Medical Society—Horatio R Storer, Newport

SOUTH CAROLINA

State Medical Society—R A Kinloch, Charleston

TENNESSEE

State Medical Society—S T Armstrong, Richard B Maury, F L Sim, Wm H Taylor, Memphis Wm I Briggs, Jno A Draughon, Hiram King Heller, Jno B W Noulin, Nashville, Jos A Crook, Henderson Green L Gillespie, Covington, E K Leake, Collierville, Jas B Murfree Murfreesboro Thos K Powell, Dancyville, Giles C Savage, Jackson, I hvel B Sloan, Cowan, Wm Green Ewing, Nashville

Davidson County—J Y Crawford, Duncan Eve, Paul F Eve, W I Glenn, W D Haggard J G Sinclair, Nashville

Loudon County—Wm T Faute, Lenoirs

Rutherford County—Jas F Byrn, Murfreesboro

Sumner County—Deering J Roberts Nashville

Tipton County—S M Payne, Covington

Permanent Members—Robert W Mitchell, D D Saunders

TEXAS

State Medical Association—D B Blake, Cuero, W P Butts, R B Grammer, Ft Worth, Geo W Christian, Burnett Geo Cupples, Byron Kingsley, Frederick Terrill, T J Tyner, San Antonio, O Eastland, Wichita Falls, Jas D Jordan, Madisonville, Cecil Warren LeGrand, Hempstead, Jas W McLaughlin, Austin, Jno F Y Paine, Galveston, J C B Renfro, Fayetteville, Bacon Saunders, Bonham

Waco—Welcome H Calfee, Robert W Park, Waco

Permanent Members—Elias James Beall, Miles Cyrus Farrar, Ft Worth, Jno W Carhart, Lampasas, Ashley Wilson Fly, Galveston, Ferdinand Herff, San Antonio, T H Noll, Goliad

VERMONT

State Medical Society—Henry F Crain, Rutland, Edward F Upham, West Randolph

Permanent Member—Adrian T Woodward, Brandon

VIRGINIA

State Medical Society—J Edgar Chancellor, University of Virginia Wm G Eggleston, (Chicago, Ill), Samuel K Jackson, Herbert M Nash, Norfolk, Geo Baxter McCorkle, Covington

WEST VIRGINIA

State Medical Society—George Baird, Wheeling

WISCONSIN

State Medical Society—John Knowlton Bartlett, Alois Grattinger, Milwaukee, Wm T Galloway, Ghas G Strong, Eau Claire, Franklin R Garlock, Jno G Meachem, Jr, Racine, K Hoegh, La Crosse, Geo W Jenkins, Kilbourn City, Henry Palmer, Janesville

Northwest Inter State Medical Association—Chas Alexander, Eau Claire

Chippewa Valley—Chas G Strong, Eau Claire

Iowa County—Wm Eastman, Mineral Point

Verein Deutsche Aertze—N Senn Milwaukee

Permanent Member—Wm B Morley, Hillsville

UNITED STATES ARMY

Medical Department—Chas T Alexander, St Louis, Joseph K Corson, Ely McClellan, Jefferson Bks, St Louis, John C Spear, Navy Yard, New York

UNITED STATES NAVY

Medical Department—Wm T Hood, Washington

U S MARINE HOSPITAL SERVICE

Walter Wyman, New York

INDEX VOLUME VI

PAGE
ABDOMEN penetrating wounds of 88 589
  wounds of 249
Abdominal incision in suppuration around vermiform appendix 02
Abortion artificial 78
  viburnum in 319 457
Abscess cerebral after empyema 305
  from pelvic cellulitis 57
  lumbar 421
  mammary prevention of 12
  of corpus striatum 412
  of gall bladder 557
  pelvic 215, 234
  pelvic extra peritoneal incision in 93
  in the male 489 496
  pelvic laparotomy for 379 445
Abscesses cold 125
Acetone detection of 706
Acne vulgaris 95
Adams dangers of kissing 568
Adenine 492
Adenoid disease of pharynx 662
Address in Medicine 533
  in Obstetrics 561
  in Ophthalmology 701
  in State Medicine 645
  in Surgery 589
  President's report on 605
Addison s disease bacilli in 706
Adonidine action of 487
Adrenals atrophy of 235
Air cold inhalations of in typhoid 428
Albumen excretion influence of milk diet on 292
Albuminometry 180
Albuminuria fuchsine in 97
  in hernia 236
Alcohol influence on oxydization 154
Allen adenoid disease of pharynx 662
Allaben passage of glass through foot 26
Altitude cardiac disease and 578
  relation of to nervous disease 583
Alum in baking powders 504
Alveloz 414
Amenorrhœa potassium permang in 292 574
America beer drinking in 560
American Climatological Association 578
  Laryngological Association 662 690
  Medical Association 16 560 661
   annual meeting 549
   delegates and members 714
   future of 389
   intrigue in 334
   led astray 278
   official report 601
   officers for 1887 605
   officers 27
   papers read before 463
   scientific aspect 323
   where should meeting be held 431
  Public Health Association 18 46 74 474
  Surgical Association 522 552
Amputation by disarticulation 65
  by lateral flaps 65
  reinfusion after 209
Amyl nitrite in opinion poisoning 52
Amyloid degeneration after dysentery 107
Anæmia action of mercury on blood in 348
Anæsthesia local by cocoaine 67
Analysts public 190
Anatomical preparations injection of 598
Anchylostomum duodenale 634
Andrews evacuator for litholapaxy 626 633
  attachment for filiform guides 626 633
  cancer of the uterus 85
  excision of maxilla 197
  double hare lip 85
  fistula in ano 85
  imperforate urethra 197
  lumbar abscesses 421
  removal of hair mole 197
  sphacela of scrotum 85
  tenotomy of tendo Achillis 85
Aneurism double popliteal 70
  of internal carotid 552
  of subclavian 385
  wiring 346
   and galvanization 707

PAGE
Anodynes in otology 200
Antipyrin action of 429 571
  as a hæmostatic 236
  in therapeutics 575
Antidote case 300
Antisepsis mortality from puerperal fever before and since 333
Antiseptic dressing blotting paper 126
  treatment of wound 483
  value of biniodide of mercury 273
Anus fissure of 629
  prolapse of 628
Aorta embolism of 547
Aortic regurgitation experimental 404
Aortitis septic 517
Archives slaves de Biologie 280
Arkansas Medical Society 435
Armstrong maritime sanitation 23
Army medical department changes in 28 56 84 112 140 168 19 224 308 364 392 448 476 504 532, 56 588 616 644 672 700 713
Army surgeon general f 530
Arsenic bromide in diabetes 515
Artery pharyngeal abnormal 583
Ascitis early tapping in 306
  permanent drainage in 220
  surgery of 598
Asthma pathology of 269
  pyridine in 401 485
Astley Cooper prize 307
Ataxia locomotor joint disease in 236
Atmosphere sterilized 526
Atropine in morphia poisoning 517
  in opthalmology 365
  new use for 68
Avery health boards 1
Axford genito urinary surgery 244
  removal of lower jaw 354

BABCOCK mitral stenosis 353
Bacilli in Addison s disease 706
Backward movement, case of 630
Bacteria and puerperal processes 162
  of surgical lesions 525
Bacterial forms 436
  therapeutics 305
Bacteriology points in 533
Bacteriotherapy 42
Baer hydro- and pyo salpinx 73
  fibrous tumor degenerated 74
Baking powders alum in 504
Balch Dr Louis 308
Baldwin Wm Owen obituary of 643
  memorial meeting to 708
Balloons toy danger of 532
Barnes Dr injustice to 409 498
Bartholomew s St Hospital 190
  chronic diarrhœa 393
  dyspepsia 393
Bartholow epilepsy 169
  exophthalmic goitre 393
  irritable heart 170
  progressive muscular atrophy 393
  torticollis 169
Bartlett toxic properties of sassafras 50
Baths graduated in typhoid fever 13
  in heart disease 69 101
Batten coryza 109
Battey s operation 271
Baxter Branches 277
Beer drinking in America 560
Belfield anchylostomum duodenale 634
  electrolysis in stricture 454 492
  exploration of bladder 243
Belladonna inhalation in bronchitis 404
Bellevue commencement 359
Beri beri 385 686
Bermann nasal polypi 160
Bernardy mercury biniodide in obstetrics 422 440
Bernays cells and micro organisms 4
Bert Kibard and 441
Biological science Grocers company and 503
Bishop cocaine in hay fever 141
  in otology 200
Bitters effect of on indigestion 630

PAGE
Blackmail protection against 114 130 131 165
Bladder exploration of 243
  hypertrophy 288
  large calculus from 79
  papilloma of 79 160
  removal of calculi 153
Blood crystals 332
  corpuscles measurement of 95
  origin of 495
  plaque 659 687
  preservation of fluidity of 308
  reinfusion after amputation 209
  spectroscopy of 280
Blood vessels, action of kairin thallin hydrochinon resorcin and antipyrin on 571
Blotting paper antiseptic dressing 126
Boarman jaundice from concussion of brain 357
Bombay Anthropological Society of 670
Bone transplantation of 180
Boracic acid in diabetes 404
Boracine 482
Bouchardat death of 495
Bowditch pneumatic differentiation 580
Brain concussion of jaundice after 357
  surgery of 181
  surgery of stone age 416
  tumors 231
Branches of the Association 163 237 245 246 248 267 274 275 276 277 296 417 418
  committee on 608
Bright s disease prognosis in 29 127
British Medical Association Address in Medicine 434 498
Brodie President s Address 505
Bromide of potassium incompatible with calomel 598
Bronchitis belladonna inhalation in 404
  chronic terpene in 68
Brooklyn typhoid fever in 79
Brower cocaine 77
  effect of on central nervous system 59
Brucine use of 264
Bullard lupus erythematosus 584
  tea poisoning 437
Burnett tubercular disease of iris 24
Butter detection of other fats in 586
Byford laceration of perineum 253 271
  pelvic abscess 215

CÆSARIAN section 527
Caffeine hypodermic solution of 598
Calcium chloride value of 67
Calculi small removal of 153
Calculus large from a boy s bladder 79
Calomel as a diuretic 459
  incompatible with bromide of potassium 598
  in syphilis 235
Cancer of œsophagus 107
  of uterus 85
  of uterus diagnosis 402
  painful cocaine in 68
Carbolic injections 529
  injections in carbuncle 468
Carbuncle carbolic injections in 468 529
  treatment of 185 469
Cardiac lesion unusual 548
  murmurs mitral 158
  stimulants 467
Carhart treatment of carbuncle 469
Carotid internal aneurism of 552
Cataract congenital 175
  extraction of 239
  flap extraction of 202
Catlett cocaine and mania 160
Catheters disinfection of 279
Cautery galvano handle 665
Cavities dry dressings for 264
Cells relation to micro organisms 4
Cellulitis pelvic terminating in abscess 57
Cervix cicatrices of 198 218
  laceration of 126, 241
  rapid dilatation of 427
Charity organization 220
Chevreul M 504
Chicago as a medical centre 377

PAGE
Chicago drinking water 544, 556
sanitary inspection in 503
Child nephrectomy on 554
Children, partial dislocation of radius 123
in institutions health of 136
prevention of myopia in 154
syphilitic, microbe in tissues of 430
Children's hospital in Moscow 532
Chloroform and oxygen, anæsthesia by 68
hypnone an adjuvant to 266
Cholecystectomy 622
Cholecystotomy 527, 557, 622
Cholera 168 464, 690
and keratitis 460
bacillus 332
coast defenses against 295
Chorea relation to rheumatism, etc 210
Choroid ossification of 39 272
Circulation changes of by pneumatic cabinet 579
Circumcision cocaine in 546
Clarke early tapping in ascitis 346
pelvic cellulitis 57
Clavicle fractured, treatment of 403
Climatology, Congress of 467
Coagulation blood plaques and 659, 687
Cobra poison 208
Cocaine action of injections of 278
and mania 166
artificial 266
benzoate of 376 518
effects on nervous system 59 77
in cancerous growths 68
in circumcision 546
in glaucoma 612
in hay fever 141 206
in nasal diseases 98
in otology 200
poisoning antidote to 488
subcutaneous injections anæsthesia by 67
Codeine test for 467
Cohen paralysis of crico arytenoids 666
Colchicine poisoning by 273
Coleman Cæsarian section 527
ossification of choroid 272
College of Physicians and Surgeons 220
Colloid, malignant 281
Colon adherent to gall bladder 412
Colotomy laparo 591
Comma bacillus Ferran on 275
Congress International Medical 45 56 130 138 155 192 333 352 551 557
enthusiasm over 219
entertainment of 607
Local Committees 708
membership in 139
Officers of 599
preliminary organization of 602
of American Physicians and Surgeons 523 576 582 692
Conn State boards of health 18
Constipation in women 150 163
Convulsions morphia in 706
Cords vocal paralyzed 665
Corneal opacities 375
ulcers 682
Corpus striatum functions of 402
Corrosive sublimate in diphtheria 459
Coryza 121
etiology of 109
Coskery sarcoma of jaw 232
Cremation 386
in Paris 112
report on 606
committee on 612
Crico arytenoids paralysis of 666
Crico hyoid muscle 97
Criminals, schools for 378
Culture physician and his 461
Currie, æsthetics in dentistry 36
Curtin Rocky Mountain fever 581
Cushing bacteria and puerperal processes 162
Cutter injustice to Barnes 498
Cyst ovarian 414
ovarian, ruptured 298
Cystitis, pichi in 486
Cysts pyogenic after fistula operation 372

DAKOTA Medical Brief 308
Daly treatment of diphtheria 692
Dana relation of high altitude to nervous diseases 583
Davis bromide of arsenic in diabetes 515
Day, Branches 277
future of the Association 389
Dead disposal of 76
Deafness, persistent 153
De Blois, laryngeal œdema 694
Degeneration calcareous of fibrous tumor 74
Degrees, American, in Germany 308
Delavan, buccal tuberculosis 691
Delegates to foreign societies 612
Dengue etiology of 673
Delirium tremens from chewing tea 658
Dental surgery, *relations of syphilis to* 652
Dentistry, æsthetics in 36
Diabetes, boracic acid in 404
bromide of arsenic in 515
in same family 427
Diagnosis photographic 336
Diaphragm, rupture of 596
Dickinson s work on renal diseases 549
Digestion and dyspepsia 298
effect of bitters on 630
physiology and pathology 206
Dilator uterine 234
Diphtheria, in Kalamazoo 225
sublimate in 459
treatment of 692
Disarticulation, amputation at knee by 65
Discharges watery of pregnancy 301
Disease collective investigation of 45
conservative element in 636
indicated by hair roots 573
parasitic doctrine of 191
Disinfectants 11
Disinfection of sewers 20
Dislocation of head of radius 94 123
Diuretic calomel as a 459
Doctor s experience in three continents 577
Doctors gifts to from patients 470
Doering hydatidiform pregnancy 250
protection against black mail 114 131
Donaldson Dr Frank Jr 633
effects of pneumatic cabinet 579
functions of recurrent nerve 666
Dressings, dry for cavities 264
Dry dressings 108
Drugging in the dark 521
Drugs carelessness with 416
Dublin Royal College of Surgeons of 670
Dubois aunty death of 220
Duct cystic closure of 557
Dudley vesico vaginal fistula 353
Dulles indirect fractures of skull 337 368
Dunning intubation of larynx 426
Duodenostomy 670
Dysentery 628
amyloid degeneration after 107
Dysmenorrhœa from Fallopian occlusion 454
rapid dilatation in 427
treatment of 234
Dyspepsia digestion and 298
nervous 345
papain in 458

EARLY artificial abortion 78
watery discharges of pregnant women 301
East Dr W A death of 28
Eclampsia puerperal urine in 404
Eczema erysipelatous 476
Edson s Dr report 220
Education for work of life 211
in Naples 332
physical 19
State regulation of 646
study of medicine as means of 43 222
Eggleston quinine in sciatica 398
reflex paraplegia 511
tolerance to morphia 398
Electricity in rigid os 97
Electrodes normal 139
Electrolysis in stricture 455 492 684 700
Embolism of aorta 547
Emmet s button hole operation 637
Empyema cerebral abscess after 505
thoraco centesis for 126
Endocarditis and intermittent fever 129
relation of chorea to 210
England mortality from zymotic diseases 52
Enterectomy 594
Enterocele vaginal and vulvar 53
Entero lithiasis 593
Entero stenosis 594
Epilepsy 169
menstrual 400
ovarian 480
Epithelioma, resorcin in 98
Ergot active ingredients of 518
Ernst bacteria of surgical lesions 525
Esbach s tubes 180
Eserine in opthalmology 365
in glaucoma 106
Etheridge vesico vaginal fistula 298
Ethics division on in New York 155
Ewell gifts to doctors 470
protection against blackmail 165
Examiners Virginia Board of 551
Exercise, in heart disease 69 101

FAITH HEALERS 689
Fallopian disease 176
tube, disease of 134
tubes diagnosis of distension 547
tubes occlusion of 454
Farlow abnormal pharyngeal artery 583
Feeding bottle in intubation of larynx 385
Fehling s test, *modification of* 266
Felsenreich s traction forceps 144 159
Femur, fracture of 557
Fenger osteoplastic resection of foot 494
Fenn, San Diego 425
Fever epidemic of, peculiar 204
physio pathology of 233
Rocky Mountain 581
Fibrous band of leg 441
Field ante partum hæmorrhage 465
inversion of the uterus 464
Filehne, Dr 280
Filiform guides, attachment for 626 633
Finger marks and murder 112
Fingers extensor tendons of 14
Fire place construction 503
Fistula healing after *operation for* 574
in ano 85
gastric 617
pyogenic cysts after operation for 372
urinary umbilical 372
vesico vaginal 73 298 353
vulvo rectal 638
Flint Dr Austin 386 392
death of 321 335 448
funeral of 359
in memoriam 507 578
memorial exercises to 496
obituary of 361
prognosis in Bright s disease 29
Flint Jr diabetes in same family 427
Florida Medical Association 559
Fluids restriction in obesity 372
Fœtation extra uterine 613
Fœtus pathological conditions of 355
Foot glass passed through 26
osteoplastic resection of 494
Forbes Prof Wm S 522
Forceps axis traction 144 159 213
ovariotomy 412
Foreign bodies in stomach 617
in œsophagus 584 613
Fournie Dr Edward death of 504
Fox ovarian cyst 218
Fracture compound of femur 557
false joint from 686
of the oleceanon 06
of skull effects 548
Fractures of skull indirect 337
treatment of 10
wiring and drainage 449
Frank degenerated kidney 200
French photograph of laryngeal image 693
Surgical Congress 364 441
Fry protracted first stage of labor 171 180
Fuchsine, in albuminuria 97

GALL BLADDER abscess of 557
adherent to colon surgery of 621
Galvanization, and wiring in aneurism 707
Galvano *cautery handle* 665
puncture in hæmatocele 460
Garland reflex neurosis 62 103
Garnett, A Y P Jr death of 390
Gastro enterostomy 619
Gastrotomy 617
Georgia poison in 56
Gerster foreign bodies in œsophagus 585
Gestation prolonged 118
Gierke Prof Hans 644
Gilmore symblepharon 351 456
Glands enlarged cervical 313 327
Glaucoma cocaine in 612
eserine in 106
stretching the supra trochlear nerve in 96
Glycosuria discussion on 386
Gordon relation of hysteria to disease of appendages 561
Goodell, malignant colloid 281
vaginal hysterectomy 640
vegetations of uterus 281
year's work in ovariotomy 134
Gradle drinking water 544 556
Graham's *Dr*, address 491
Graham demand for medically educated women 477
Gratiot stramonium poisoning 400
Greene J O death of 46
Griswold Gaspar death of 336

PAGE
- Guérin, Jules 224
- Gunn surgery of nerves 52[illegible]
- Gynecological Society of Boston, 162 218 355 464
  - of Chicago 50 78 213 301, 330 379

- HÆMOTOCELE galvano puncture in 460
- Hæmoptysics terpene in 68
  - treatment 152 484
- Hæmorrhage after uvulotomy 476 693
  - ante partum 465
  - carbolic injections in 5[illegible]0
  - post partum saline injections in 573
  - post partum strychnia in 403
- Hæmostatic antipyrin as a 236
- Hair roots, indicators of disease 573
- Hairy family 670
- Hall epidemic of fever 204
- Hallucination, curious 386
- Hamilton alveloz 414
  - Branches 246
  - caries of knee joint 273
  - penetrating wounds of abdomen 88
- Hare lip cleft palate and enlarged mesenteric glands 25
  - double 85
- Harriman constipation in women 150 163
- Harrington pulmonary complications of typhoid 86 105
- Hartigan, rupture of ileum 106
  - wound of heart 414
- Hartwell physical education 19
- Harvey portrait of 305
- Haven etiology of rachitis 91 105
  - a teratom 78
  - improved stethoscope 105
  - nursing bottle 106
- Hay fever cocaine in 141 206
- Health Boards of 1 18
  - conference of 531
  - unconstitutional 336
  - Board of Ohio 470
  - in Michigan 140
  - of Illinois 308
  - public bureau of 408 415
  - resorts 316, 325
- Heart action of kairin thallin hydrochinon resorcin and antipyrin on 571
  - disease and high altitude 578
  - baths in 101
  - and exercise in 69
  - sparteine in 154
  - gunshot wound of 414
  - irritable 170
  - lesion unusual 548
  - stimulant 467
  - 31 ounces 414
  - sutures in 548
- Hemenway diphtheria 225
- Henry C R obituary of 616
- Hepatic colic physiology of 14
- Hepatitis peri- with cirrhosis 107
- Hernia albuminuria in 236
  - treatment of 376
- Herniotomy skin incision in 292
- Hip disease traction treatment 458
  - joint disease apparatus 124
- Hirst vulvo rectal fistula 638
- Hitchcock gumma of tongue 694
- Holden gummatous disease of larynx 694
- Holt sanitary protection of New Orleans 23
- Hooper, position of paralyzed vocal bands 665
- Horner, naval hospital 257
- Hornibrook puncture of lion 120
  - pyonephrosis, etc 288
- Huxley honors to 670
- Hydatid cysts of liver 467
  - disease treatment of 653
- Hydrochinon action of 571
- Hydrology and climatology Congress 467
- Hydrophobia 308
  - commission 504
  - inquest 528
  - in Russia 559
  - Pasteur s treatment 138
  - spontaneous 190
  - treatment 220
- Hydro salpinx 73 134
- Hygiene school, report on 75
- Hypnone 13 373
  - adjuvant to chloroform 266
- Hypodermatic medication 183
- Hysterectomy vaginal 640
- Hysteria, relation to disease of appendages 561

- ICE impure legislation against 644
- Ileum rupture of 106

PAGE
- Illinois Board of Health 308
  - Practice Act 689
  - State Medical Society 559
- Inebriates, hospital for 257
- Infancy false joint from fracture in 686
- Infectious diseases, reporting 70
- Inflammation, increase of leucocytes in 289
- Ingals cocaine in hay fever 206
  - intubation of glottis 147
  - post nasal snare applicator 25
- Inhibition, reflex action and 519
- Injections in intestinal obstruction 45
  - vaginal 8
- Injuries exhibition of 662
- Insane female physicians for 492
- Insanity and public opinion 79
- Intermittent fever and endocarditis 129
  - lemon decoction in 430
- Intestinal obstruction 592
  - obstruction, injections in 45
- Intestine gangrenous resection of 290
- Intestines, laceration of 591
- Intubation 147
  - feeding bottle in 385
  - of larynx 186
- Intussusception 592
- Iodine intra venous injections of 376
- Iodoform in phthisis 98
  - in uterine catarrh 126
- Iodo glycerine, injection for spina bifida paralysis after 487
- Iodol 42
- Iowa medical practice act 436 445
- Iridectomy, in detachment of retina 108
- Iris tubercular disease of 24
- Iron assimilation of 518

- JACKSON, pelvic abscess 379
  - prolonged gestation 118
  - stem pessary 703 709
- Jaggard axis traction forceps 213
  - tænia mediocanellata 634
- Janeway Prof E G 504
- Jarvis subglottic growths 693
- Jaundice after concussion of brain 357
  - treatment of 658
- Jaw removal of 354
- Jejunostomy 41 620
- Jenkins, intrigue in Association 334
- Jensen digestion and dry pepsin 298
  - recovery from phthisis 39
- Joint disease in tabes 236
- Johnson false from fracture 686
  - vomiting of pregnancy 284 304
- Johnston Dr Wm E death of 295
  - diagnostitial laparotomy 523
  - naso pharyngeal growth 696
- Jones, vomiting of pregnancy 469
- Journal new 240
- Journal report of Trustees 609
- Judicial council report of 611
- Juries exhibition of injuries to 662
- Jurisprudence relation to physiology 273
  - section on 604 608

- KAIRIN action of 429 571
- Kalamazoo diphtheria in 225
  - sanitary convention at 502
- Keen stretching facial nerve
- Keating vesico vaginal fistula 73
- Keller Branches 248
- Kelly chronic ovaritis salpingitis etc 667
  - contraction of broad ligament 667
  - extra uterine pregnancy 668
  - hæmatoma of ovary 242
  - menstrual epilepsy 409
  - 100 lb ovarian tumor 641
  - pyo salpinx hydro salpinx 134
- Kennedy carbolic injections 529
- Keratitis cholera and 460
- Kidney degenerated 300
- Kidneys unstriated muscle in 403
- King conservative element in disease 636
- Kissing dangers of 568 642 700
- Kleinschmidt papilloma of uvula 272
- Knapp normal electrodes 439
- Knee caries of 273
  - joint amputation at by disarticulation 65
- Knight laryngeal vertigo 690
- Knox quinsy as rheumatism 186

- LABOR tardy first stage of [illegible]2 48 171 189
- Lamb extra uterine pregnancy 413
- Lamb tumor of liver in still born child 25
  - tuberculous lung of monkey 25
  - pathological specimens from infant 25
  - panophalmitis in a kitten 25

PAGE
- Lamb, 31 ounce heart 414
- Lander institute, another 528
- Landesberg action of injections of cocaine 278
- Lane cerebral tumor 327
- Lane letter from Brazil 385
- Lanolin 300
- Laparotomy diagnostitial 523
  - explorative 99
  - for pelvic abscess 445
  - in abdominal wounds 53 240
  - in suppuration around vermiform appendix 92
- Laryngeal growths subglottic 693
  - image photograph 693
  - muscles paralysis of 686
  - œdema 694
  - recurrent, functions 666
  - vertigo 600
- Laryngitis, acute intubation in 186
- Laryngology Address in 701
- Laryngotomy 694
- Larynx gummatous disease of 694
  - intrinsic muscles of 665
  - intubation of 147 186 331
- Lead battery, new 52
- Lead poisoning 374
- Lee influence of surgery on obstetrics 697
  - Plymouth epidemic 19
- Leg amputation by lateral flaps 65
- Legacies well bestowed 490
- Leidy intrinsic muscles of larynx 665
- Lemons decoction in intermittent 430
- Lens, ossification of 272
- Leucocytes increase of in inflammation 289
- Leucomaines 268 377
- Levis impediments to surgery 138
- License revocation of 224
- Ligament broad contraction of 667
- Lime chloride value of 67
- Lipoma testis 554
- Lister honors to 670
- Listerism 108
- Lithium salicylate in rheumatism 375
- Litholapaxy rapid evacuator for 626 633
- Liver abscess of 120
  - cirrhosis of 107
  - hydatids of 120 467
  - inflammation of 120
  - injuries of 6[illegible]3
  - puncture of 120
  - sugar forming function of 547
  - tumor of of still born child 25
- London new and old colleges 416
- Loomis cardiac diseases and high altitude 578
- Lung tuberculous of monkey 25
  - erythematosus 584
  - of throat 664
- Lupus of throat 664
- Lydston relations of syphilis to dental surgery 652
- Lyford scleroderma 557
- Lymphatics Sappey s work on [illegible]80

- MACCARTHY Dr death of 273
- MacKenzie instrument for fracturing nasal septum 665
  - respiratory neuroses 694
- Malarial fever and yellow 25
- Mania cocaine and 166
- Mansfelde von tuberculosis 300 342
- Marcy bacterial forms 436
  - fibroid tumor 467
- Martin cicatrices of cervix and vagina 108 218
- Marine hospital service changes 56 112 196 2[illegible]4 [illegible]80 336 392 476 504 560 644 700
- Marsden Dr Wm death of 73
- Massage 6[illegible]9
  - in nervous dyspepsia 345
  - physiological effects of 705
- Mastin subcutaneous division of stricture 555
- Maxilla excision of 197
- McLaughlin etiology of dengue 673
- Medical college standing new text 463
  - men mortality of 305
  - men of Naples 332
  - practice act Iowa 436 445
  - regulation of 646
  - Record 496
  - Society Chicago 77 186 [illegible]43 271 298 353 49[illegible] 556 633 709
    - officers 441
  - District of Columbia [illegible]4 106 160 272 304 357 41[illegible] 634
    - officers 476
  - Suffolk District 103 325 436 583
  - study fourth year of 631
- Medication hypodermatic 183
- Medicine academic studies in relation to 351 360

PAGE
Medicine N Y Academy of 442 496 584 613 607
  Address in 533
  preventive, advances in 640
  study of, as means of education 45 222
  State 649
  systems of in Naples 332
Medicines duration of action of 15
  for internal and external use 502
Medico legal Society of Chicago 588
Meningitis in pneumonia 238
Menorrhagia uterine exploration 177
Mercurial poisoning nervous troubles in 375
Mercury bichloride, in tuberculosis 441
  action of on blood 348
  biniodide antiseptic 273
  in obstetrics 2[illegible] 446
  solvents of 98
  oxides, injection of 266
Mesentery tumors of 625
Metaphysicians and Illinois Practice Act 4 689
Michigan health in 140
  State Medical Society 644
Micro organisms relation to cells 4
Microscopical examination of morbid parts 265
Milk diet influence on excretion of albumen 292
  digestion of 404
  scarlatina from 190 657
  standard a 336
Min Dr Dmitry Egorovitch 103
Mineral waters 581
Miryachit 168
Missions medical 502
Mitral cardiac murmurs 158
  stenosis 353
Mole removal of 197
Moncorvo Dr 385
Monette coryza 121
  erysipelatous eczema 426
  pyogenic cysts 372
  treatment of fractures 10
Morgan hæmorrhage after uvulotomy 693
Morphia influence on oxidization 154
  in convulsions 706
  poisoning atropine in 517
  tolerance to 388
Morphiomania 41
Mortality of medical men 305
Morton amyloid degeneration 107
  cancer of œsophagus 107
  cirrhosis of liver 107
Murder finger marks and 112
Murphy ovariotomy 64
Muscle crico hyoid 97
Musser prevention of phthisis 583
Myopia prevention of 154

NANCE Dr Hiram death of 502
Naphthol in skin diseases 42 98
Naples hospitals and clinics 332
Nasal catarrh requiring surgical treatment 696
  diseases cocaine in 98
Naso pharyngeal growth 696
Naval inebriate asylum 335
Navy medical department changes in 196 280 336 392 448 504 532 560 588 616 644 672 713
Nephrectomy laparo- 624
  on a young child 554
Nephritis milk diet in influence on excretion of albumin 292
Nephrotomy laparo- 624
Nerve centres influence of starvation 485
Nerve facial stretching 551
  stretching in glaucoma 96
Nerves suture 13
  surgery of 522
  optic thebaine in affections of 376
Nervous disease and high altitude 583
  disease strychnia in 14
  system central effect of cocaine on 59
  troubles in mercurial poisoning 375
Neuroses, respiratory 604
Neurosis reflex 62 103
New Hampshire State Medical Society 643
Newman ruptured ovarian cyst 298
New York division on Codes 155
  State Association 5th Branch 336
New York State Medical Association library of 136
New York Co Medical Association officers 136
New York State Board of Health 136
New York State Society 270
Norris, pathological conditions of fœtus 355
Nose removal of foreign bodies 125
Nursing bottle improved 105

PAGE
OBESITY, restriction of fluids 372
  Sée on treatment of 293
Obstetrical Society of Philadelphia 241 409 440 637
  statistics 219
Obstetrics biniodide of mercury in 422, 440
  influence of surgery on 697
Œsophagus, cancer of 107
  foreign bodies in 584 613
  malignant disease of 618
  stricture of 618
Ohio medical legislation in 136
  Sanitary Association 308
  State *Board of Health* 470
Olecranon fracture of 66
Ollier, Prof 504
Omentum tumors of 624
Operations in Naples 332
Ophthalmia contagious 130
Ophthalmalogy address in 701
  French Society of 612
Opium poisoning nitrite of amyl in 52
Os rigidity of faradic current in 97
Osler spindle celled sarcoma 107
Osteotomy cuneiform for talipes 557
Otis health resorts 316 375
Otology address in 701
  cocaine in 200
Ovarian cyst 218
  tumor 412
    sac of 635
    weighing 100 lbs 611
Ovaries, follicular degeneration of 73
Ovaritis chronic 607
Ovariotomy 64
  year's work in 134
Ovary hæmatoma of 242
Overcrowding among workmen 52
Oxygen chloroform and anæsthesia by 68

PALMER abscess of corpus striatum 417
  gall bladder adherent to colon 412
  ovarian epilepsy 480
  canal 532
Pancreas structure of 207
  surgery of 576 674
Panophthalmitis double in a kitten 25
Paoli female physicians for insane 492
Papain in dyspepsia 458
Papilloma inflammatory with acne vulgaris 95
  of the bladder 79 160
  of Fallopian tube 134
  of uvula 277
Paralysis after injection for spina bifida 487
  bulbar 671
  of crico arytenoids 666
  oculo motor, pelletierine in 42
  of laryngeal muscles 686
Parametritis and perimetritis 333
Paraplegia reflex 511
Parasitic docrines of disease 191
Paris lecturers 441
Parish ovarian tumor 412
Park tracheotomy tube 554
  lipoma testis 554
  nephrectomy on a child 554
Parker boracine 482
  clothing case 261
  vaginal injections 8
Parks Battey's operation 271
  cholecystotomy 527
  sarcoma of thigh 355
Parkinson Branches 245
Pasteur attack on 52
  Brazilian 385
  commission 560
  Institute 697
  report by 537
  patients for 504
Patella fracture metallic suture 460
Patellar ligament ruptured treatment of 70
Peabody industrial buildings 528
Pedicle twisted 271
Pelletierine in oculo motor paralysis 42
Pelvic abscess 234
  extra peritoneal incision in 93
  in the male 489 496
Pelvic organs, palpation of 179
Perimetritis 333
Perineum lacerations of 219 253 271
Peritoneal, retro, tumors 625
Peritonitis section and drainage in 596
  chronic 598
  pelvic 667
  perforative 597
  tubercular 598
Perityphlitis 584
Pessary, stem. 703 709

PAGE
Pharmacy, new college of 578 697
Pharynx adenoid disease of 662
Phelps, Dr C H 386
Philadelphia Co Med Society 81 273
  Obstetrical Society 48 73 134
  Pathological Society 107
Phimosis, causing paraplegia 501
  painless operation for 266
Phthisis catarrhal treatment by terpene 68
  iodoform in 98
  prevention of in mill hands 583
  recovery from 39
Physician his culture 461
Physicians, and Pathologists, Association of 280
Physiology relation to jurisprudence 273
Pichi, in cystitis 486
Pirogoff's method modification of 488
Pityriasis, lotion for 706
Placenta prævia management 320
Plaster, mulls action of 546
Platt pneumatic differentiation 580
Pleurisy diaphragmatic 405
Plumbers, of Baltimore 308
Plymouth Company 196
  epidemic 19
Pneumatic Cabinet effects of 579 580
  differentiation 580
Pneumonia meningitis in 238
Policlinic Chicago 645
Polypi nasal 160
  rectal 628
Polypus, fibroid of uterus 639
Post Dr Alfred C 212
Potash permanganate in amenorrhœa 297 574
Pott's disease etiology of 613
Powers Dr G N 476
Practice Act and metaphysicians 689
  State regulation of 646
Pregnancy extra uterine 413 668
  Hegar's sign of 291
  hydatidiform 330
  vomiting of treatment 284 304 469 499
Pregnant women discharges of 301
President's Address 505 519
  report on 605
Prewitt aneurism of internal carotid 557
Price Emmet's button hole operation 637
  ovariotomy forceps 412
  pyo salpinx 243 411
Prince, sterilized atmosphere 576
Prize Astley Cooper 307
Prize of the Association 578
  of Spanish Academy 112
Proegler tartar emetic vaccination 251
Prostate hypertrophy of 400
Ptomaines and leucomaines 268 377
Puerperal fever 219
  before and since antisepsis 333
  processes bacteria and 167
Pupil changes in after death 265 467
Pustule of smallpox and tartar emetic 82
Pylorectomy 618
Pylorus stenosis of 618 620
  malignant diseases of 619
Pyonephrosis 288
Pyo salpinx 73 134 243 411
Pyridine in asthma 401 485

QUARANTINE inspections of northern frontier 392
Quinine palatable, tolerance of 397
  in sciatica 308
Quinsy as rheumatism 186

RABIES 690
  etiology and prevention of 349
  Pasteur's rule 190
Rachitis etiology of 91 105
Radius dislocation of head of 94 123
Rags Spanish 560
Rauch Address in State Medicine 645
  maritime quarantine 21
Rectal polypi 628
Rectum in the young 628
  prolapse of 678
Reflex action and inhibition 519
Reinfusion after amputation 209
Renal diseases Dickinson's work on 549
  diseases new work on 588
Resection osteoplastic 494
Resorcin action of 571
  in epithelioma 98
Respiration artificial in still birth 434
  effect of pneumatic cabinet on 579
Retina detachment of iridectomy in 108

PAGE
REVIEWS
Barnes, obstetric medicine and surgery 671
Bartley medical chemistry 27
Bary De bacteria 167
Brunton, pharmacology and therapeutics 83
Cathell the physician himself 139
Clowes, practical chemistry 27
Fagge, principles and practice of medicine 83, 471
Hueppe bacteriology 472
Habershon Lettsomian lectures on liver 642
Marine Hospital Service annual report 110
Mears, practical surgery
Nebraska State Medical Society transactions 193
Palmer epidemic cholera 194
Peyer atlas of clinical microscopy 500
Roberts operative surgery of brain 195
Schäfer essentials of histology 500
Sajous diseases of nose and throat 642
Smith post mortem examinations 27
Stimson operative surgery 83
Tyson practical examination of urine 111
Webber nervous diseases 672
Wells abdominal tumors 700

Reynolds lupus 113
Rheumatism lithium salicylate in 375
  quinsy as 186
  relation of chorea to 210
Rice *mineral waters* 581
  surgery of nasal catarrh 694
Richardson tardy first stage of labor 32 48
Richey eserine in glaucoma 106
Rome Academy of Medicine of 504
Rush Monument report on 604
Russia, hydrophobia in 559
Russians wolf bitten 528

SAJOUS galvano cautery handle 665
Saline injections intravenous in post partum hæmorrhage 573
Salpingitis 667
San Diego 425
Sands perityphlitis 584
Sanitary Association Ohio 308
  condition of Columbus 531
  convention at Kalamazoo 502
  in Philadelphia 476
  inspection in Chicago 503
Sanitation house danger 26
  maritime 23
Santal oil 488
Sappey s work on lymphatics 280
Sarcoma of jaw 292
  of thigh 355
  retro peritoneal 107
Sassafras toxic properties of 50
Saulle Henri L du 612
Saunders W E obituary of 530
Scarlatina from milk 190 657
School houses and school life sanitary necessities of 46
Schools, medical in United States 279
Sciatica quinine in 398
Science bequest for advancement of 84
Scleroderma 557
Sclerosis disseminated physiology of 102
Scrotum sphacelees of 85
Secundines management of 680
Senn status of abdominal surgery 589 617
  surgery of pancreas 526
Septicæmia puerperal and leucomaines 377
Sewers disinfection of 20
Sewage disposal of 138
Sex determination of in utero 133
Shaler Gen second trial 496
Shoemaker disinfection of catheters 278
Sidewalks dry treatment of 632
Sibbet academic studies in relation to medicine 360
Skin diseases naphthal in 98
Skull effects of fracture 548
  indirect fractures of 337 368
Small pox 168
  and tartar emetic pustule 82
  cholera and yellow fever 73
Smith address in ophthalmology 701
  Dr A H, death of 28
  naval inebriate asylum 335
Snare applicator post nasal 25
Sodium hippurate in uric acid diathesis 98
Soldier clothing case for 261
Sota de la lupus of throat 664
Sparteine 108 154
Sphincter ani stretching 263
Sphygmography in a balloon 224
Spina bifida paralysis after injection of 487
Spleen hypertrophy of
Splenectomy 572 621
Stamm nervous dyspepsia 345
Starvation influence on nerve centres 485
Sterility rapid dilatation in 427
Stethoscope improved 105
Still birth artificial respiration in 434
Stimulants cardiac 467
Stomach, foreign bodies in 617
  ulcer of 619
Stramonium poisoning 400
Strangulation internal 594
Stricture, electrolysis in 455 492 684 700
  subcutaneous division of 555
Strong intubation of larynx 186
Strophanthus 464
Strychnia in nervous disease 14
  in post partum hæmorrhage 403
Studies academic relation to medicine 351 360
Study medical fourth year 631
Students in Naples 332
  in Paris 273
  in United States 279
Subclavian aneurism of 385
Sugar, forming function of liver 547
  test for 460
Suppositories, nutrient 179
Suppuration increase of leucocytes in 289
Supra renal capsules atrophy of 235
Surgery impediments to 178
  abdominal status of 589 617
Surgical diseases bacteria of 525
Sutton dangers of kissing 642
  Fallopian disease 176
  laparotomy for Fallopian disease 454
  nitrate of silver in vomiting of pregnancy 499
Suture, metallic in fractured patella 460
Sutures in the heart 548
Symblepharon new operation 354
  operation for 456
Syphilis calomel in 235
  moot points in 432
  secondary action of mercury on blood in 346
  relation to dental surgery 652
  treatment of 151
Syphilitic children microbe in tissues of 430

TALIPES tenotomy of tendo Achillis 85
  osteotomy for 557
Tape worm causing paraplegia 511
Tartar emetic vaccination 251
Tea chewing delirium tremens from 658
  poisoning 406 437
Teale fire place construction 503
Tendon grafting 706
Tendons divided regeneration of 72
  extensor of fingers 14
Tennessee State Medical Society 364
Teratoma 78
Testicle lipoma of 554
Thallin action of 571
Thebaine in optic nerve affections 376
Thomas T Gaillard 420
  uterine applicator 411
Thompson atropine and eserine 365
  corneal ulcers 682
  extraction of cataract 202
  ovarian cyst 414
  sac of ovarian tumor
Thoraco centesis for empyema 126
Throat lupus of 664
Thrombotic degeneration with sarcoma 107
Tilley lanolin 300
Torticollis 169
Trachelorrhaphy 126
Tracheotomy tube 554
Transfusion experimental 249
Treasurer s report 608
Tube coherence of ovary and 667
Tuberculosis bichloride in 441
  buccal 691
  congenital 376
  genital 208
  nature and treatment 309 342
  relation to cold abscess 125
Tumor cerebral 327
Tumors etiology of 136
Typewriting 224
Typhoid fever baths in 13
  in Brooklyn 79
  inhalations of cold air in 428
  pulmonary complications 86 105

ULCERS chronic 46
University of N Y commencement 250
Unna's plaster mulls 546
Urachus, patent 372
Urea source of 266
  hepatic origin of 430
Ureters, dilatation of 288
Urethan *373 574*
Urethra, imperforate 197
Urethrotomy median 288
Uric acid diathesis hippurate of soda in 98
Urinary affections santal oil in 488
  genito surgery 244
Urine detection of acetone in 706
  in eclampsia 404
  test for sugar 460
Uterine appendages disease of 442
  relation of hysteria to 561
  applicator 411
  catarrh idioform in 126
  cavity photographing 630
  dilator in dysmenorrhœa 234
  exploration in menorrhagia 177
Uterus cancer of 85 402
  fibroid polypus of 630
  flexions stem pessary in 703 709
  inversion of 464
  vegetations of 281
Uvula, papilloma of 272
Uvulotomy hæmorrhage after 476 603

VACCINATION in Japan 644
  tartar emetic 251
Vagina cicatrices of 198, 218
Vaginal injections 8
Valin sex in utero 133
Vanderbilt clinic 496
Vanderpoel Dr death of 59
Varicocele radical cure of 706
Verity wiring compound fractures 440
Vermiform appendix laparotomy in suppuration around 92
Vertigo laryngeal 690
Vesico vaginal fistula 73
Viburnum in abortion 319 457
Vickery enlarged cervical glands 313 327
Virginia Board of Examiners 551
Vitreous body artificial 122
Vivisection experiments in England 670
Vocal cords paralyzed 665
Vomiting of pregnancy treatment 281 304 499
Vulpian M 532

WADE DR E 386
Wall papers poisonous 336
Warren Doctor s experiences in three continents 577
Ware ossification of choroid 39
Water drinking 544 556
Wathen management of secundines 680
Waxham intubation of larynx 331
Webster antidote case 300
Wells Dr E F 560
Whittaker bacteriology 533
Williams pneumatic differentiation 580
Wilson fibroid polypus of uterus 630
  laceration of cervix 241
Wiring for aneurism 346
Wisconsin State Medical Society 616
Woman s Hospital Alumni Association 613
Women *constipation in* 150 *163*
  medically educated 365 477
Woods carbolic injections for carbuncle 468
Woodworth malaria and yellow fever 25
Work shops commission on 21
Wounds antiseptic treatment of 483
  stab and shot laparotomy in 52
Wright disinfection of sewers 20

YARNALL umbilical fistula 372
Yarrow papilloma of bladder 160
Yellow fever 385
  commission on 23 507
  and malarial fever 25
  inoculation 240
  prophylaxis 385

ZENNER brain tumors 251
Ziegler small pox and tartar emetic pustule 82
Zymotic diseases in England mortality 52